FINANCIAL EDUCATION PROGRAMMES IN SCHOOLS :

ANALYSIS OF SELECTED CURRENT PROGRAMMES AND LITERATURE DRAFT RECOMMENDATIONS FOR BEST PRACTICES

By

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[1] The contents of this report, including the draft recommendations, reflect the views of the author and are released under his responsibility.

EXECUTIVE SUMMARY

Research in a number of countries has shown that many people lack the ability to manage their money well. At the same time, the consequences, both to individuals and to society at large, of a failure by people to take adequate steps to safeguard their financial future are becoming increasingly serious.

The OECD Financial Education Project was initiated in 2003, in response to OECD government concerns over the possible adverse effects of low levels of financial literacy and of financial education. The first major study of financial education at the international level was published in 2005. That report, *Improving Financial Literacy: Analysis of Issues and Policies*, identified and analysed financial literacy surveys in OECD member countries, highlighting the economic, demographic and policy changes that make financial education increasingly important. In 2005, OECD governments also endorsed a *Recommendation on Principles and Good Practices for Financial Education and Awareness*. This preliminary report on financial education programmes in schools and other educational establishments, forms part of this Project.

This report reviews financial education programmes aimed at students in selected OECD and non-OECD member countries. The focus is mainly on programmes aimed at schoolchildren, since the great majority of programmes intended for students are for those of school age.

The overall picture is one of rapid growth in both the number and range of financial education initiatives. But the picture is patchy, both between countries and within countries.

There is a wide variety of programmes in existence, many of which have been launched relatively recently. Many of the programmes are innovative and have been carefully designed so that their target audience will find them engaging. While many of these programmes have characteristics which are particular to the country in question, there is nevertheless clear potential for those who are looking to develop new financial education programmes to adopt ideas from existing ones – whether from their own country or overseas. This report refers to websites, and to other sources of programmes, on which policy makers and other stakeholders may wish to draw.

This report also reviews the available research on the effectiveness of financial education initiatives aimed at students. There is, at least as yet, a lack of unambiguous research to demonstrate the effectiveness of financial education programmes for students. Not surprisingly, the focus to date in many countries has been on the development of new programmes, rather than on commissioning research. The report recommends that a broad range of research is undertaken to establish the most effective ways of providing financial education, both to assist policy makers to decide how best to focus resources in the future and to help convince educationalists that, within what are often crowded curricula, space should be found for personal finance education.

Delivering high quality financial education to students is an idea whose time has come. This report sets out a number of draft recommendations for increasing the delivery of, and the effectiveness of, the provision of financial education to students.

Drawing on the main findings of this initial survey of financial education programmes in educational establishments, the OECD intends to launch in 2009-2010 a more extensive stock-take exercise covering all OECD countries and selected non-members countries. This broader exercise would enable the development of a more comprehensive report on financial education programmes in educational establishments across a wide range of countries.

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INTRODUCTION

In a world in which consumers are increasingly being expected to take responsibility for managing their finances, and in which the range and complexity of choices which consumers face continue to grow, it is important that people are able to make sound decisions about their money. However, many people lack the skills and knowledge to do so. Effective financial education programmes can help give people the skills, knowledge and confidence which they need to manage their money well.

This preliminary report forms part of the OECD Financial Education Project, which was initiated in 2003 in response to OECD government concerns about the possible adverse effects of low levels of financial literacy. In recent years, the OECD has become an international leader in the area of financial education, promoting the need for financial education and helping to set standards for it. The OECD published the first major study of financial education at the international level in 2005. That report, *Improving Financial Literacy: Analysis of Issues and Policies*, identified and analysed financial literacy surveys in OECD member countries, highlighting the economic, demographic and policy changes that make financial education increasingly important. The report also described the various financial education programmes being offered in OECD countries, provided an assessment of their effectiveness and suggested actions which policy makers could take to improve the provision of financial education.

In 2005, OECD governments also endorsed a *Recommendation on Principles and Good Practices for Financial Education and Awareness*. One of the key principles is that "Financial education should start at school....People should be educated about financial matters as early as possible in their lives."[1] As part of its current work on financial education, the OECD is finalising work and recommendations on good practices on financial education in the context of pensions and insurance, which should be released in the first half of 2008. It is also conducting work on financial education and credit issues.

As the OECD's 2005 study brings out, it is becoming increasingly important that consumers have the ability to manage their finances well. For example:

- in many countries, consumers are being expected to take greater personal responsibility than in the past for their financial well-being;
- people are living longer and need to be able to finance themselves throughout the increased period which they can expect to spend in retirement;
- the financial decisions with which people are faced are often more complex than was typically the case in the past.

There is no single solution to the challenge of how to equip people to manage their finances well. Instead, a range of support – ideally, comprising education, information and advice – needs to be

[1] Similarly, the European Commission's principles for financial education, published in 2007, includes the following: "Principle 3: Consumers should be educated in economic and financial matters as early as possible, beginning at school. National authorities should give consideration to making financial education a compulsory part of the school education curriculum."

provided. The provision of effective financial education to students in schools, and also to students in universities and colleges, can play an important role within an overall financial education strategy:

- financial education can potentially be provided to all schoolchildren in particular age cohorts: they are, in effect, a captive audience. Near-universal coverage of this kind is not feasible for adults;
- other things being equal, younger people are likely to be more receptive to education than older people;
- increasingly, children are making major purchases from a young age and some of them can become determinants of family expenditure. Many older schoolchildren, as well as those who have gone on to further or higher education, have an income earned from occasional work. Children and young people are important target groups for advertising and marketing;
- many young people spend a lot of money on, for example, mobile phone charges. Mobile phone tariffs can be difficult to understand and comparisons between different offers are generally not straightforward;
- many older schoolchildren need to consider the financial implications of whether or not to continue their education;
- young people are increasingly taking financial decisions which could have a significant impact on their well-being, for example by exposing them to the risk of building up significant debts;
- students are the consumers of the future. Financial education can help provide students with the building blocks which they will need to make sound financial decisions throughout their lives. If responsible attitudes and good habits are instilled in people at an early age, they are less likely to get into financial difficulties in later life and are more likely to make financial provision for their future;
- research (for example in the UK) has suggested that young people are less financially capable than their elders. In many countries, however, young people face greater financial challenges than their parents' generation did when they were at a similar age;
- many parents lack the knowledge and ability to manage their money well and so are not in a position to provide effective guidance to their children. There are examples of students, who have themselves benefited from financial education, helping their parents to manage their finances.

However, there are a number of challenges to the development and delivery of effective financial education programmes for students:

- governments and other policy makers may fail to recognise the importance of financial education or may otherwise be unwilling to make available resources or to promote its delivery;
- curricula are often already crowded, making it difficult to introduce stand-alone financial education programmes;
- teachers may not have the competence or confidence to deliver effective financial education;
- if financial education is not delivered well, students are likely to find it dull and uninspiring;
- there is a lack of research findings showing how to deliver financial education most effectively or showing the impact of financial education on attitudes to money management and on likely future behaviours.

As this report demonstrates, however, there are lessons that can be drawn from those countries which have made greatest progress in delivering effective financial education programmes which can help to overcome these challenges. Among other things:

- financial education can be integrated into more established subjects (such as mathematics and citizenship) as well as, or instead of, being delivered as a separate subject;
- teachers can be helped, through training and the provision of tried and tested materials and lesson plans, to become competent and confident in the delivery of financial education;
- there is a wealth of attractive materials lesson plans and other support which teachers can draw on;
- many students – as well as parents and teachers – attach priority to receiving effective financial education;
- as discussed in Section 2 of this report, there are a number of research results which, together with feedback from educational professionals and students, point to particular ways to deliver financial education effectively.

As experience grows in what is still a relatively new discipline, and as good practice is disseminated and adopted, it is likely that understanding will grow as to what works well and that high quality materials and techniques will become increasingly widely available.

Against this backdrop, Section 1 of this report discusses the main features of current financial education programmes, drawing on examples from countries which responded to a questionnaire. Section 2 summarises the results of some of the main relevant research. Section 3 sets out draft recommendations, which are intended to assist policy makers and others with an interest in improving the delivery of financial education for students.

Annex A summarises some of the main features of financial education in those countries which responded to a questionnaire. Annex B provides further detail, on a country-by-country basis, of financial education programmes in schools.

Methodology

A questionnaire was sent to experts in selected OECD member countries and non-member countries, to seek information about financial education programmes for students and any relevant research. Experts in all but two of these countries (Australia, Canada, France, Ireland, Malaysia, Netherlands, New Zealand, Singapore, United Kingdom and United States) completed the questionnaire and/or provided other information.

In addition, an analysis was undertaken of relevant published research into the effectiveness of financial education initiatives aimed at students; and supplementary advice was obtained from some academics specialising in this field.

Telephone or face-to-face interviews were undertaken with some of the experts who were consulted.

Limitations

The analysis of financial education programmes is confined to programmes in those countries which were sent the questionnaire and which provided information in response. Varying amounts of information are available about programmes in different countries; in some cases, information was provided about only some aspects of programmes in those countries.

In several other countries, financial education programmes aimed at students have recently been launched or are about to be launched. This reflects the growing recognition of the importance of financial education.

The great majority of existing programmes are aimed at students of school age, rather than students in universities or colleges. Correspondingly, most of the information received in response to the questionnaire was about schools programmes. Reflecting this, most of the report focuses on this area, with a shorter section on financial education in universities and colleges[2].

In many countries, little or no research has so far been conducted into the effectiveness and efficiency of financial education programmes. This is an area which is ripe for development. The focus of research which has been undertaken tends to differ as between different countries, which limits the scope for comparing results.

Virtually all the research which has been conducted has focused on financial education in schools (rather than in universities or colleges).

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[2] Information on programmes in universities and colleges is set out in the boxed text on page 17.

SECTION 1

FINANCIAL EDUCATION IN SCHOOLS: CHALLENGES AND SOLUTIONS

Until recently, few people understood the concept of financial literacy or why improvements were necessary. However, in many countries today, relevant stakeholders increasingly recognise the consequences – to society as well as to individuals – of poor levels of financial literacy and a number of initiatives are under way to try to improve the current situation. But much more remains to be done.

It would be unrealistic to expect that a single solution would be sufficient on its own. For example, a programme which focused solely on students would provide no direct benefits to the existing adult population. And it would take several decades for the great bulk of financial services consumers to have been exposed to a financial education programme as students. Moreover, many adults who had received financial education as a student would benefit from refresher training or support – particularly given the rapidly changing financial landscape, which can mean that, for many, there have been significant developments since they finished full-time education.

So, broadly based strategies are needed to drive up current levels of financial capability. Within such strategies, financial education programmes aimed at students have a vital role to play.

The remainder of this section of the report examines financial education programmes in schools (and the much more limited number of financial education programmes in universities and colleges) and reviews some of the main issues and challenges, together with solutions which have been developed in selected countries

1. General framework and role of key stakeholders

Persuading policy and educational decision-makers

One of the major challenges to embedding financial education successfully into schools is in persuading policy and educational decision-makers to provide room in the curriculum. There are many competing demands for places in the curriculum: financial education must, in effect, compete for space against alternative subjects, such as nutrition and sex education. No matter how persuasive the case for educating students about the wise use of money, little progress is likely to be made unless relevant policy and educational decision-makers – at national and, if relevant, local levels – are on board and are supportive. So, those who are looking to promote financial education programmes need to consider carefully whose support is needed (for example, is it sufficient to persuade Ministers and officials in national education departments; or is discretion exercised at local level, or at the level of individual schools, thus making it necessary also to persuade local officials and head teachers) and how best to secure their support. Moreover, they need to take effective action to secure this support.

One of the considerations which will weigh with decision-makers is whether proposed financial education programmes can contribute to the achievement of legislative or other requirements relating to the contents of school curricula. Those who advocate the incorporation of financial education programmes into the curriculum need to be able to address this issue.

Another factor which will weigh with decision-makers is whether or not high quality materials which students are likely to find attractive, together with training and other support for teachers, is readily available – and, if they are, at what cost. If not, there is no shortage of alternative subjects which can be taught in the limited time available for teaching students.

Policy and educational decision-makers, whether at national, regional or school level, will not necessarily recognise the importance of financial education, understand how it can be incorporated within the curriculum or know what is available to help provide effective financial education. In those circumstances, it is important to put in place an effective communications plan to ensure that key decision-makers have appropriate information on these sorts of issues.

Nevertheless, many teachers recognise the importance of financial education in providing their students with necessary life skills. For example, in the Netherlands, a survey of some 400 teachers indicated that teachers in both secondary and primary schools regard financial education as very important. Similarly, research carried out in the UK by the Financial Services Authority found that 53% of schools for children aged 11 and above and 34% of schools for those aged 7-11 considered it very, or fairly, high priority to teach personal finance education: the main reason given for not teaching it was lack of time in the curriculum.

No single organisation can bring about the successful delivery of financial education in schools. A partnership approach is needed. In Australia, for example, the Australian Government's Financial Literacy Foundation works collaboratively with educational authorities, business and community organisations. It established a national Reference Group of State and Territory education jurisdictions, Catholic and Independent sectors and Offices of Fair Trading to develop a National Consumer and Financial Literacy Professional Learning Strategy. In the UK, the FSA works closely with the national government (in particular, the Department for Children, Schools and Families and the Treasury); with devolved governments in Scotland, Wales and Northern Ireland; and with government agencies, such as the Qualifications and Curriculum Authority and the Office for Standards in Education, Children's Services and Skills (Ofsted); and, when formulating its strategy, it held a workshop with a range of headteachers. In addition, pfeg[3] (Personal Finance Education Group) which is the main delivery arm in England for the financial education in schools strategy, liaises closely, on a continuing basis, with a wide range of interested parties.

In a number of other countries (for example, Ireland, Malaysia, Netherlands, New Zealand, Singapore and United States), national financial education strategies, involving a range of partners, have been initiated or are in the process of being established. This helps to facilitate a partnership approach to the delivery of financial education in schools.

Leadership and coordination

In order to provide focus and momentum, there needs to be – as well as a partnership approach – effective leadership at national level, at individual school level and possibly at intermediate (such as regional) levels. There are a number of different models for achieving this, some of which involve more than one leader at national level, with each of the leaders focused on different aspects. Examples include the following:

- in New Zealand, the Retirement Commission leads work on financial education, as part of its leadership of the development of a national strategy for financial literacy. It may seem anomalous that an organisation whose purpose is to help people prepare financially for their retirement

[3] Pfeg is an educational charity.

should lead work on financial education in schools. However, the Retirement Commission recognises that, in order for people to be able to plan for their retirement, they need to be financially well-educated and to be able to make informed financial decisions throughout their lives;

- in Malaysia, Bank Negara Malaysia (the central bank), in collaboration with the Ministry of Education and with financial institutions, plays a leading role. Its savings campaign, which was launched in 1996 and the long-term objective of which is to nurture Malaysians to be financially savvy, provides the foundations for a financial education programme for schoolchildren, which is designed to inculcate the savings habit and to create awareness of the importance of smart financial management and planning;
- the Australian Government established the Financial Literacy Foundation in June 2005, as a division of the Treasury, to give all Australians the opportunity to improve their financial knowledge and better manage their money. The Foundation provides national leadership for the national strategy on financial literacy, a key element of which is financial education in schools, and works collaboratively with educational authorities, business and community organisations to build social, spiritual, intellectual and financial capital in education nationally. This multifaceted model has coherent strategies at school, system and sector levels. It is adapted from the *Alignment for Transformation Model*[4] and identifies how schools acquire and utilise different kinds of resources. The Foundation continues to develop partnerships with relevant government, industry and community organisations to deliver high quality financial literacy programmes and resources;
- in the UK, the Department for Children, Schools and Families is responsible for policy relating to financial education in schools in England, with devolved governments fulfilling similar roles in Scotland, Wales and Northern Ireland, while the Financial Services Authority leads the national strategy on financial capability, one of the main strands of which is financial education in schools. In Scotland, the main strategic organisation for financial education in schools is the Scottish Centre for Financial Education, which is part of Learning and Teaching Scotland (an organisation which advises the Scottish Government on curriculum policy).

It is important also that there is effective leadership at school level. In the UK, the Office for Standards in Education, Children's Services and Skills (Ofsted) (2008) found that, in schools and colleges where financial education was being developed successfully, there was nearly always a member of staff, often at senior level, who had overall responsibility for the development of financial education across the institution. In some cases, this was a non-teaching member of staff: this approach could work well, because the person concerned had time to liaise with teachers across the curriculum and to establish effective links with outside bodies.

Main organisations involved in the provision of financial education

In many countries, a wide range of organisations is involved, in some way, in the provision of financial education. Typically, this can include some or all of the following: government or government agencies; local government; financial services regulators and central banks; various educational bodies; private sector entities, such as financial services firms and trade bodies; and consumer and voluntary organisations. Each of these types of body has an interest in developing the financial skills of young people. There are some organisations – such as the Microfinance Centre for Central and Eastern Europe and the New Independent States; and some financial services firms and foundations – which operate across a range of countries.

[4] See Caldwell and Spinks (2007).

In those countries with well-developed financial education programmes, the government, a government agency, a financial services regulator or the central bank has generally played a vital role in leading and coordinating the initiative. These organisations are usually also the main, or even the only, providers of the resources which are needed to develop and sustain financial education programmes.

Organisations involved in the provision of financial education can play a variety of roles, ranging from laying down requirements or guidance about the teaching of financial education to the provision of materials or making available trained staff to go into schools to help deliver financial education on the ground.

Some private sector organisations, such as financial services firms, have made financial education one of the main themes of their corporate social responsibility activities. Similarly, some charitable foundations include financial education among their objectives. It is important that, where the commercial sector is involved in the provision of financial education, safeguards are in place to avoid any marketing, or the appearance of marketing, of products or services.

Under Malaysia's School Adoption Programme (SAP), more than 7,000 schools have been adopted by a financial institution (a commercial bank, development bank or insurance company). The financial institutions lead activities relating to banking, insurance and basic financial knowledge, as well as providing an opportunity for schoolchildren to experience having a bank account.

Successful programmes generally involve a partnership approach, involving a range of organisations from different sectors, to the delivery of financial education in schools. In the US, Jump$tart is a coalition of some 185 entities, including financial services firms and trade organisations, educational bodies, charitable foundations and consumer and voluntary bodies. Moreover, there are also state coalitions, each of which has its own partners/members.

Length of time financial education programmes have been in place

In the US, financial education programmes have been in place for several decades. For example, the US National Endowment for Financial Education (NEFE) High School Financial Planning Program – which is provided free of charge to schools and organisations in all 50 States, the District of Columbia, and US military installations around the world – was launched in 1984 and since then has reached over 5 million teenagers in 60,000 schools. Prior to that, students were typically required to take home economics (now known as family and consumer science) courses, many of which included a personal finance element. However, in most states, family and consumer science courses are now elective, rather than compulsory, so fewer students are exposed to personal finance education in this way.

The US Jump$tart Coalition for Personal Financial Literacy was launched in 1995 to promote personal finance education in schools and to improve the financial knowledge and abilities of children and young adults, as well as to coordinate the financial literacy activities of a variety of organisations and agencies.

In most other countries, financial education programmes (where they exist) have tended to have begun more recently. And in those countries where financial education programmes have been in existence for some years, there has typically been a greater impetus towards the provision of financial education over the last few years than in the past.

Costs and funding

Little information is available about the costs of financial education programmes. The information which is available tends to relate to the direct funding of particular aspects of a programme – for example, the costs of developing a resource or of providing specific teacher training courses. There is no information available about what are typically much greater amounts of indirect funding (for example, a proportion of the costs of teacher time, where financial education is delivered in the context of another subject; or the notional costs of the time of financial services staff who provide support to schools on a voluntary basis).

Where funding is provided for particular initiatives, it is important that it is made available for a sufficiently long period ahead to allow those involved in the delivery of financial education to plan sensibly. For example, if funding for teacher training were made available for no longer than a 12 month period, those who would need to develop the training programme and promote it to teachers might well feel that there was insufficient certainty about possible future funding to justify the necessary investment of their time.

2. Incorporating financial education into the curriculum

Should financial education be compulsory?

In some states or countries, financial education is a compulsory part of the curriculum, that is schools are required by legislation to provide financial education. For example, in the US, the Jump$tart State Requirements website[5] indicates that, in 2008, three states require at least a one-semester course devoted to personal finance; 15 states require personal finance instruction to be incorporated into other subjects; and while other states have no such requirements, personal finance education is provided in most of them on a discretionary basis. Detailed requirements differ from state to state and can also differ from school district to school district. At the Federal level, the Senate and the House of Representatives have passed Resolutions 126 and 273, respectively, designating April as financial literacy month. A number of states have accordingly recognised April as financial literacy month or have other types of financial education bills pending.

In Canada, financial education is mandatory in British Columbia under a life skills programme (the financial education component of which occupies around 21 hours of class time) at the Grade 10 level; and it is mandatory in Nova Scotia at the Grade 11 level under career and life management (with personal financial life skills - including budgeting, credit, banking – taking up around 15 hours). Other provinces have non-mandatory courses that contain some elements of financial education. Financial management outcomes are included in the mandatory mathematics courses in all provinces, but there is no uniform curriculum across the country.

In Northern Ireland, financial education is compulsory at primary school level as part of mathematics and numeracy and at secondary school level as part of mathematics with financial capability; and it is also delivered through other parts of the curriculum. In Wales, financial education is compulsory for all schoolchildren aged 7-16.

In a number of countries, schools have discretion as to whether or not to provide financial education and, if so, how to set about this. In some of these countries, a significant proportion of schools provide some financial education, but the amount and content can vary widely.

In some countries, the government encourages schools - for example, through guidance - to provide financial education. For example, in England, the government issued guidance to schools in 2000 which encouraged them to provide personal finance education. This guidance specified different types of financial education for children of different ages within the overall age range of 5-16. At secondary school level (that is for children aged 11-16), financial capability has recently been given a more secure place in

[5] http://www.jumpstart.org/state_legislation/index.cfm

the curriculum through a new economic wellbeing and financial capability strand, which forms part of revised Personal, Social, Health and Economic (PSHE) education. In addition, financial education is now included in the programmes of study for mathematics; and it will be a context for functional mathematics, when this is introduced into the curriculum from September 2010. While financial education will remain non-statutory, the government has stated that it expects all children aged 5-16 to receive financial education.

The case for making financial education compulsory is that this is the surest way of securing its inclusion in school timetables: given that, typically, curricula are already crowded, it may be difficult to secure space for financial education unless it is made compulsory. Financial education can be made compulsory as a stand-alone subject or as part of other relevant subjects. In either case, however, making a subject compulsory does not necessarily result in high quality teaching and learning. Even in those countries or states where financial education is compulsory, its delivery tends to be patchy.

In view of the pressures on curriculum time, and also of the general thrust of policy in some countries to give schools a significant degree of autonomy in deciding what to teach, compulsion may not be achievable politically – particularly, until such time as a track-record has been developed on the effective provision of financial education on a voluntary basis. So, especially for countries in the early stages of delivering financial education programmes, it may be unrealistic to expect immediate inclusion of the subject in the compulsory part of the school curriculum. Moreover, some experts[6] consider that schools are more likely to deliver high quality financial education if they are willing volunteers. If, however, financial education is not compulsory, there need to be clear incentives for schools to provide financial education and to deliver it well.

Should financial education be a stand-alone subject?

An important related issue is whether financial education should be provided in schools as a stand-alone subject or, instead, as part of other courses.

The case for a stand-alone course is that this gives financial education greatest prominence and is likely to help secure the provision of more time within the curriculum to cover the wide range of financial topics which schoolchildren should ideally be taught. Specialist teachers can develop expertise in the subject and can plan a comprehensive and coherent programme (within the constraints imposed by the time made available to teach the subject). Where financial education is not given dedicated time, there is a risk that its delivery will be incoherent or will not take place.

In many countries, however, it is likely to be unrealistic to secure the inclusion in the curriculum of new, stand-alone subjects, such as financial education. Further, there is a positive case for incorporating financial education into existing courses. This can help to bring financial education to life, enable financial topics to be covered in a wide range of contexts and – to the extent that a stand-alone financial education course would be optional, rather than compulsory – can dramatically increase the number of schoolchildren who receive some financial education.

In many situations, the way forward will be determined by pragmatism. If there is no realistic prospect of securing space in the curriculum for a stand-alone subject – which in many countries is likely to be the position – then the focus should be on identifying opportunities within the existing curriculum for incorporating financial education. Examples can be found of financial education being incorporated within a wide range of subjects, including mathematics, economics, citizenship and related subjects, business and enterprise studies, social sciences, languages, science, geography, history, drama, information and

[6] Based on responses to the questionnaire.

communication technology, home economics and catering, family and consumer science, careers education and work-related learning.

In mathematics, for example, money issues can provide a context for teaching to which students can readily relate. By way of example, students could consider an advertisement for perfumes which shows reductions in previous prices. They could be asked to calculate the percentage reductions, together with the cost per millilitre for each of the perfumes. An advertisement on these lines could also prompt discussion of needs and wants and of whether products or services which have been subject to price reductions necessarily represent good value to the consumer.

In history, discussion of a past example of a Stock Market collapse can provide an opportunity to talk about the role which holders of stocks and shares play; the nature of stocks and shares; how their value is determined; what makes their value rise and fall; what has been their long-term performance; etc. Similarly, students in the US studying the Great Depression can learn about the rise of the modern banking system and the Social Security system.

Students taking a family and consumer science course can learn about how credit works while being taught how to shop for major purchases, like cars and homes. Students taking catering courses can be required to prepare detailed costings for meals they will be preparing and to learn about the importance of staying within a budget.

Integrating financial education into other subjects saves scarce curriculum time; and the integration of financial education into "real world" contexts can help attract students' interest and facilitate their learning.

At what age should children start to receive financial education?

Some experts[7] feel that the best prospect of influencing future behaviour is to reach children while their minds are most open to new concepts, and that this is towards the beginning of their school lives.

There are a number of examples of financial education programmes for children in kindergarten. Activities can include, for example, simulated shopping for toys or for household goods, where children learn about coins and gain an understanding of the value of money; learn about the importance of keeping money safe and that there are choices to be made as to how money is used; and are given simple calculations to perform. This sort of activity can meet a number of wider educational objectives for young children, for example through reading shop signs and writing shopping lists as well as from performing calculations.

Children are able to relate to a wider range of topics as they become older. Clearly, programmes need to reflect the capabilities and interests of children in the age range at which they are targeted.

In many countries, fewer students participate in financial education after the age of 16. Typically, students over that age are able to choose which subjects they study. Reasons why relatively few students who stay on at school after the age of 16 opt to take part in financial education programmes include that the subject is commonly seen as being mathematically complex; and that there is a scarcity of qualifications available to those who take the subject, so students are generally not able to receive any formal recognition for their learning.

[7] Based on responses to the questionnaire.

3. Aims and content of financial education programmes

Aims

There is general agreement that the purpose of financial education is to help equip students to manage their money well throughout their lives.

In some countries, the relevant authorities have set out what they expect schoolchildren of different ages to be taught. In England, for example, the Department for Children, Schools and Families expects the following:

- at age 5-7: money comes from different sources and can be used for different purposes;
- at age 7-11: to look after their money and realise that future wants and needs may be met through saving;
- at age 11-14: what influences how we spend or save money, and how to become competent at managing personal money;
- at age 14-16: to use a range of financial tools and services, including budgeting and saving, in managing personal money.

The Office for Standards in Education, Children's Services and Skills (Ofsted) (2008) has recently published a two page set of learning outcomes that might be expected of a financially capable 16 year old.

In the US, the Jump$tart Coalition for Personal Financial Literacy has developed National Standards in K-12 (that is from kindergarten to 12th grade) Personal Finance Education, which set out the personal finance knowledge and skills that students should possess. The Jump$tart Coalition intends the standards to serve as a model, or framework, for an ideal personal finance curriculum, portions of which might not be appropriate for individual instructors or students. The standards indicate that a financially literate high school graduate should know how to:

- find, evaluate and apply financial information;
- set financial goals and plan to achieve them;
- develop income-earning potential and the ability to save;
- use financial services effectively;
- meet financial obligations;
- build and protect wealth.

The standards include learning benchmarks for 4th, 8th and 12th grades (roughly, ages 9-10, 13-14 and 17-18).

The draft syllabus drawn up by the New Zealand Retirement Commission sets out four aims:

- Aim 1 - an appreciation of the *mindsets* applying to financial behaviour;
- Aim 2 - *knowledge and understanding* of financial information and processes and the impact they have on daily living;
- Aim 3 - personal financial management *competencies* that encourage confidence in undertaking financial activities;

- Aim 4 - recognition and development of their personal *values* set which makes it possible for them to achieve their personal goals.

The New Zealand Retirement Commission's draft syllabus contains twelve learning outcomes:

- take responsibility and manage one's own financial well-being;
- exercise long-term thinking, commitment, self discipline and personal responsibility in relation to personal financial management;
- evaluate the consequences of a range of choices with regard to one's goals;
- recognise, understand and apply financial knowledge to meet personal, family and community needs during the life cycle;
- develop, exercise and practise personal financial management skills to achieve personal, family and community needs;
- recognise, evaluate and take responsibility for managed risk taking;
- evaluate income and savings strategies;
- investigate, interpret and communicate key personal financial ideas, using language;
- identify priorities and understand and evaluate the consequences of personal financial choices in the short, medium and longer time frames;
- reflect on personal financial knowledge and apply it to related contexts;
- develop a sense of responsible stewardship for financial resources;
- evaluate legal and ethical implications and considerations.

There is no "right" answer as to what schoolchildren of any particular age should be taught. But it is helpful for expected standards, or learning outcomes, to be set down in each country to help ensure that all involved are seeking to achieve the same aims.

Financial education programmes in universities and colleges

There are far fewer financial education programmes targeted at students over the age of 18 than are available for schoolchildren. However, there are some interesting examples of what can be achieved. Some of these programmes provide general information and education or pastoral support, while others form part of academic courses.

In Malaysia, Bank Negara Malaysia has participated in many seminars and workshops in universities and colleges. The main aspects of financial planning which have been highlighted during these sessions are on personal money management, especially on managing educational loans; banking and insurance issues, particularly on loans, guarantors and credit cards; motor and life insurance; investments, get-rich-quick schemes and illegal foreign currency trading; and other current banking and financial issues. The Credit Counselling and Debt Management Agency (which is a subsidiary of Bank Negara Malaysia) is collaborating with universities to incorporate personal finance into the curriculum. Once this has been done, financial education with an emphasis on personal finance will be provided as a mandatory subject to undergraduates from 20 to 24 years old. In addition, over the next two years the Malaysian Financial Planning Council (MFPC) and Permodalan Nasional Berhad (a government owned investment holding company) will be jointly organising financial planning workshops for 10,000 undergraduates at 26 universities. Apart from raising the awareness of undergraduates on the importance of financial planning, the workshops will introduce undergraduates to concepts and skills in personal financial planning. The 26 universities will also incorporate a module of MFPC's Financial Planning programme on "Fundamentals of Financial Planning" as one of the elective papers for undergraduates.

In Singapore, all publicly-funded institutions of higher learning, including universities and polytechnics, have general/cross-disciplinary financial literacy modules, or modules that incorporate financial literacy content. These are open to all students. The Institute of Technical Education in Singapore has also introduced financial planning as a key component in one of its Life Skills Modules. MoneySENSE (the national financial education programme) supplements these initiatives by partnering with the Central Provident Fund (CPF) Board to organise outreach programmes for students in polytechnics and the Institute of Technical Education. These programmes include simple games that convey financial education messages, on-line game competitions using the Voyage of Life on-line game[8] and educational talks by financial industry practitioners. The MoneySENSible Youth Award recognises polytechnic students who have taken a sensible approach to managing their money.

In the US, the National Endowment for Financial Education has developed a website, CashCourse, for colleges, universities and alumni associations to offer to their students and to recent graduates. The website, which is provided free of charge to universities and students and which can be branded by individual universities, was created with significant practical input from students and universities. Over 60 universities and colleges have enrolled. For example, the University of Iowa offers CashCourse as a resource on its Student Credit and Money Management Services Web page; the Ohio State University links to CashCourse in different topic areas, such as Credit and Jobs, within its Financial Life at OSU website; and the Wisconsin Alumni Association has highlighted CashCourse on its students page and has also linked it to each student's My UW account.

Also in the US, Wells Fargo Card Services developed a programme called "Early Intervention Education", which was targeted at first-time card holders at university. The purpose was to improve student cardholders' understanding of responsible borrowing and credit management through directing student cardholders to an internet site containing two lessons and quizzes designed to increase awareness of the importance of building solid credit. Those who completed the course spent 32.7% more on their credit card than the control group, while doing better on late fee instances (42.6% fewer) and over-limit charges (42.6% fewer) and keeping lower revolving balances (26.5% lower).

At the University of Rhode Island in the US, incoming freshmen enrol in an on-line credit education course as part of freshman orientation. The programme serves as a tutorial, providing an introduction to money management and credit use. The five-section programme uses tailored materials such as worksheets to reinforce the concepts presented during each module. Interested students can also enrol in a certificate programme in Family Financial Counselling and Planning (FFCP). FFCP certificate holders can use their financial literacy skills to find careers in personal financial counselling or planning.

In the UK, the Financial Services Authority (FSA) has developed a Money Doctors toolkit for use by money advisers in universities. The kit contains practical and innovative material to support work done with students - from freshers' week through to graduation. In 2006/07, the FSA worked with 19 universities and in 2007/08 it worked with 50 universities. It aims to embed the Money Doctors scheme in the great majority of universities from 2008/09. Training of, and mentor support for, student money advisers is a key element of the programme: evaluation and feedback from the initial 19 universities was that merely making resources available to them was not sufficient.

[8] Available at http://www.cpf.gov.sg/cpf_info/elearning/voyageoflife/main.asp

The FSA has explained the thinking behind the Money Doctors scheme: "Too often, student advisers and counsellors only get to hear about students' financial concerns once they've reached crisis point. But the Money Doctors approach helps advisers broach financial issues before they've become a problem. The toolkit includes ice-breakers, budgeting, part-time work, accommodation and graduate finance – providing a big picture approach to money."

In the further education sector in the UK, some colleges offer stand-alone courses on personal finance and some financial literacy elements are contained within numeracy and literacy provision. In 2007-08, the FSA worked with student services staff in ten further education colleges to create group activities for students to help them deal with issues such as budgeting, financial planning, how to choose financial products and how to stay informed about financial issues. The outcome of this work is a resource called Money for LiFE. This contributes to the FSA's strategic aim that colleges should put in place a planned approach to the financial capability of their students through student services and curriculum provision.

In the US, the 106 land-extension universities are required by legislation to extend the knowledge of the university to people in the area where they live and work to improve agricultural production and family well-being ("co-operative extension"). Managing personal finance is a critical component of family well-being. Programmes in the form of seminars, workshops, and conferences are run at community, state, regional and national levels on such topics as managing credit wisely, basic budgeting, legally securing your financial future and basic investing. Children and young people are among the target audiences. There is a web portal[9], part of which focuses on personal finance and provides consumer information and lessons, interactive financial calculators, more than 1,000 frequently asked questions and an "ask the expert" facility.

In some countries, financial education schemes have been established for young people outside the education system. In Canada, for example, Social Enterprise Development Innovations (SEDI) is piloting a financial capability for youth programme in the province of Ontario. In the UK, the Financial Services Authority (FSA) has funded the development of training programmes for young adults who are not in education, employment or training

Financial education should focus on attitudes and behaviours, as well as on knowledge and skills

The aim of financial education is that people should manage their money well throughout their lives. So, financial education needs to cover attitudes and behaviours as well as knowledge and skills. This is because, unless those who receive financial education subsequently behave in a financially capable manner, financial education will have failed to achieve its intended purpose.

Financial education should also cover concepts – for example, that financial services firms (as with other types of firm) are looking to make a profit: so, money which a bank is willing to lend you will typically be at a higher rate of interest than the bank will pay you on money which you save with it.

It is not sufficient for a student to understand what, for example, APR means (let alone that APR stands for Annual Percentage Rate); and some would argue that students only need to know in broad terms what an APR includes and what it measures. Instead, students need to have a broad understanding of the risks and benefits associated with borrowing; the main types of credit which are available and the sorts of circumstances in which they might be suitable; the importance of comparing deals and how to source different offers; what factors to take into account in making comparisons; how to assess affordability; the importance of making repayments; possible impacts on the individual's credit score and the implications of this; how to check one's credit score; etc. There are, of course, many other issues to which a discussion on these lines can give rise, including the difference between needs and wants.

Discussions which cover attitudes and behaviours can be challenging for teachers. For example, teachers of mathematics may well have less experience, and therefore less confidence, than (say) teachers of literature in handling open discussions in the classroom on controversial or sensitive subjects.

[9] www.extension.org

Care should be taken to avoid criticising, whether directly or by implication, particular lifestyles, especially since some of the students may come from families with those sorts of lifestyles. Behaviour which may seem perverse could in fact be rational, when account is taken of the circumstances in which the family finds itself and their value systems. Care should also be taken to avoid biased comments or sweeping generalisations. For example, a suggestion that "you should always avoid getting into debt" ignores the fact that many people who wish to buy a property to live in need to take out a mortgage in order to be able to do so – as well as failing to take into account the many other circumstances in which the responsible use of credit can be beneficial.

4. Materials and toolkits for use in financial education programmes

What materials and tools are available – and are more needed?

A mass of materials and tools is available to support the financial education of students. For example, Jump$tart's Clearinghouse[10] of financial educational tools lists around 700 resources, including printed materials, on-line resources, CDs, DVDs and games. A number of these include lesson plans, student worksheets, suggested activities and teaching guides and many are available at low cost or free of charge. The pfeg website[11] lists around 150 resources, the majority of which have been awarded the pfeg quality mark and many of which are freely available or available at low cost.

The Australian Financial Literacy Foundation's website, *Understanding money*[12], lists a range of educational materials, each of which have been assessed, through the Foundation's Essential Elements Financial Literacy Assessment (EEFLA), as being of good quality. In Australia there are three main resources used by all state education departments and sectors:

- in primary schools, MakingCents, an on-line package, has a strong emphasis on literacy and numeracy skills and includes lesson plans, units of work, advice to teachers, games, student worksheets and web-based materials. It includes three programmes, one for each of lower, middle and upper primary school, covering: using money, budgeting and spending, and calculating the cost. The materials were developed to provide detailed support for teachers to teach something they had not traditionally taught. MakingCents also has a successful parent programme, which connects the student, school and community;
- in secondary schools, the Commonwealth Bank Foundation's Financial Literacy Curriculum Resource is an on-line package particularly targeting years 7 to 10. It includes lesson plans, units of work, assessment tools, advice to teachers and web-based materials. It includes 12 modules that have been mapped against each state and territory curriculum;
- the Financial Basics Foundation's Operation Financial Literacy is a 10 module teaching resource aimed at students in Years 9-10 and is supported by detailed teacher notes and student worksheets. The kit contains numerous classroom, internet and research activities, including community surveys. The programme can also be accessed on-line.

The Citi Financial Education Curriculum contains a large number of activities, from kindergarten level upwards. Each activity sets out (among other things) objectives, estimated time requirement, material needed, list of publications which complement the activity, link to an internet activity, teaching strategies, an end of unit evaluation, handouts and overheads and (for older students) a student questionnaire which

[10] www.jumpstartclearinghouse.org

[11] http://www.pfeg.org/Resources/TeachingResource/default.asp

[12] www.understandingmoney.gov.au

can be used for pre- and/or post-activity assessments. The curriculum is available in several languages, including Spanish, Turkish, Chinese and French.

The European Commission is developing, as part of Dolceta (an on-line tool for consumer education, which includes a section on financial services which is aimed at adults and teachers of adults) a teachers corner, intended for teachers of schoolchildren up to the age of 18.

For teachers, the range of available material can be bewildering. Both the Jump$tart and the pfeg websites have search facilities which enable teachers to specify by age group the sorts of materials they are seeking and also to search the site by type of activity.

There will always be scope for additional materials which fill identified gaps. However, there have been occasions when well-intentioned organisations have produced materials which merely duplicate what is already available. It is sensible for those bodies which are considering producing new materials to consult national experts to check what is already available and where any current gaps lie.

It is also well worth national experts looking to see what has been developed in other countries before commissioning new materials. While materials produced in one country may not be capable of being used as they stand in a different country (one obvious example is that the unit of currency may be different), it could well be more efficient – subject, of course, to securing any necessary permissions – to adapt materials produced elsewhere, rather than starting from scratch.

The OECD launched in March 2008 an International Gateway for Financial Education[13]. This serves as a clearing house for financial education programmes, initiatives and research world-wide. The gateway includes a section dedicated to schools programmes.

Ensuring the quality and integrity of educational materials

Teachers need to be confident that materials and tools which they are considering using are both effective and are free from commercial bias. At one extreme, they are unlikely to be willing to use materials which have the appearance of marketing literature produced by a financial services firm. They also need to be satisfied about the educational value of materials. However, teachers will generally not have the time, and may not have the relevant expertise, to make these sorts of assessments for themselves. It can therefore be very helpful for a trusted agency to assess materials for use with students and to accredit those which meet standards relating to quality and lack of bias.

In the UK, pfeg invites producers of material and tools intended for use in schools to submit them for accreditation – that is, for the award of the pfeg quality mark. The quality mark is awarded to financial education teaching resources that meet the standards set out in pfeg’s published code of practice. The criteria for awarding the pfeg quality mark are that the resource in question:

- is accurate and up-to-date;
- matches curriculum requirements;
- is easily available and adaptable;
- covers an appropriate range of financial topics;
- has been developed in partnership with teachers and tested in schools.

[13] The OECD International Gateway for Financial Education can be accessed at www.financial-education.org

The Australian Financial Literacy Foundation has similarly published a comprehensive set of guidelines[14] which describes the criteria and process for determining whether educational materials are appropriate for listing on the Foundation's website.

How can financial education be made engaging for students?

Finance can be a complex subject. For many adults, it is both worrying and dull. However, there are many financial education programmes, materials and tools which students appear to find engaging. The following are some examples:

- the British Columbian Securities Commission's financial life skills course blends the use of fictional characters with real-life financial activities and decisions in a hands-on, activity-based format. As each financial topic is introduced, students learn the concepts and information through eight life-stage characters, each of whom is facing different financial circumstances. In a survey published in 2006, 80% of the teachers rated the resource positively and said that they intended to use it again, while 85% of students gave the course a grade of B or higher;
- in Singapore, financial education is delivered to students in fun and interesting ways as part of the MoneySENSE national financial education programme. For example, the Association of Banks in Singapore and MoneySENSE have developed a 30-minute programme which includes an interactive skit *Saving – the Sensible Habit* (about a bear named TRIFF and his friends), performed by a local theatre group, as well as a quiz. The programme is designed to reach out to primary school students during school assembly periods. It teaches students the difference between "needs" and "wants" and the virtues of living within your means and of saving for a rainy day. Teachers are encouraged to run through a cartoon guide with their students after the programme to reinforce the key learning points;
- Bank Negara Malaysia, in collaboration with the Ministry of Education, created a financial education website[15] as an interactive financial education tool to enhance financial literacy among students. Students can participate in contests, games, quizzes, financial calculations and other activities related to personal financial management. Launched in 2004, the website has attracted a membership of more than 85,000;
- the New Zealand Retirement Commission has a dedicated section on its website, *Sorted Kids and Money*, with on-line games for children of different ages and supporting information for parents and for teachers;
- Visa and the US National Football League have developed a *financial football* game, which can be played on-line or downloaded onto mobile phones, in which "students tackle financial questions like professionals in this fast-paced, quiz-style game [which] divides classrooms into two teams that compete by answering finance-themed questions to earn yardage and score touchdowns".

The UK's Office for Standards in Education, Children's Services and Skills (Ofsted) (2008) has quoted a number of examples of interesting ways to provide financial education, including the following:

- a group of students with learning difficulties was given responsibility for refurbishing a room which was to be used for a new school bank. They learned more about banking to inform their design. They then investigated the cost of the materials from different suppliers to find the best

[14] http://www.understandingmoney.gov.au/documents/essential.pdf

[15] duitsaku.com

value for money and adjusted their design to stay within budget. They placed orders, visited local stores to buy materials and learned how to monitor their spending;

- students on a physical education course were given responsibility for organising and planning the budget for their forthcoming field trip. With guidance from the teacher, the students made decisions about accommodation, menus and transport. They researched the costs and learned about the need to keep the price of the trip within budget and to have a contingency fund;
- as part of an exercise on working out the cost of a foreign holiday, students were set the task of finding out the 'best buy' in travel insurance. They used the internet to investigate different deals by filling out real applications and compared the results with the travel company's price. Students came up with different answers depending on the type of insurance cover they had requested. This led to discussion about what was included in the insurance, the level of compensation and balancing risk against cost;
- students worked with an adviser from the local Citizens Advice Bureau (CAB). The adviser briefly explained the role of the CAB and the types of financial issues it is frequently asked to advise on. Students then worked in small groups on case studies which were based on real problems the CAB had dealt with. Students took on the role of CAB advisers, drawing on their prior knowledge developed in personal finance education lessons and on guidance leaflets provided by the CAB. Some of the groups were asked to present their ideas before the adviser explained the advice she had actually given. Students assessed their own responses against the 'official' advice and some sought clarification as to why their suggestions might not have been appropriate.

Common characteristics of programmes which students appear to find engaging include:

- ***relevance to the student*:** this helps the student to see the appropriateness to him or her of the financial education programme. This can clearly include financial decisions and actions which the student can make or take; but it does not necessarily mean that the student needs to be able to take action immediately to implement what he or she has learned. For example, gaining a better understanding of how to live on a student loan is likely to appeal to those coming up to university as well as those who have recently started at university. On the other hand, information about different types of pension arrangements is unlikely to resonate with many teenagers.

  This is not to suggest, however, that financial education in schools is of no value in encouraging long-term financial planning for retirement. If students become used to planning ahead (for example, saving up for a major planned purchase) they may be more likely to plan ahead for retirement once they have entered the jobs market. And if they understand the value of financial advice, and know where to go for it, they may be more likely to seek appropriate information and advice when the time comes for them to decide how best to save for their retirement. They should also have a better understanding of the sorts of questions which they should ask a financial adviser, rather than simply taking on trust what their adviser recommends.

  Popular television programmes or newspaper stories – for example, reports about people who have large numbers of credit cards and who have run up large debts – can also provide a fruitful source of issues to stimulate discussion on how to manage one's money in a responsible way.

- ***interactive and experiential***: young people, in their everyday lives, often choose to use materials and tools which are interactive. Experience in a number of countries suggests that, in general, students are likely to find financial education materials and tools which are interactive and experiential more engaging than those which are not. Examples include engaging students in activities which involve investigating and solving problems to which they can relate. This can involve them in working in groups and presenting their conclusions to their fellow students. The subject matter can be made engaging by relating it to real life decisions, such as choosing the best value mobile phone; planning a weekly shopping budget and then going out and shopping for it; working out a budget for a student at university; or choosing and planning a foreign holiday (which could entail setting a budget; consideration of where to hold money which is being saved for the holiday; how to pay for the holiday and the benefits and risks of using cash, cheques, debit cards and credit cards; exchange rates and the costs associated with exchanging currencies; and the case for different types of insurance).

Other examples of ways in which financial education can be delivered in attractive ways include involving students in practical activities (for example, helping to run a school bank) , arranging for them to take part in financial games (for example, a simulated stock market trading exercise), using attractively presented on-line tools, viewing a play or film, role plays and case studies.

These sorts of approaches are generally considered to be more likely to be successful than formal classroom lectures on, for example, the nature of banks and their services or more traditional ways of teaching practical skills such as writing a cheque.

- ***tailoring*** to the abilities and interests of the students concerned. A number of the websites which provide information about financial education programmes and materials indicate the age range for which they are likely to be suitable. But the interests and abilities of students of the same age can vary widely. It is also important to take account of any relevant cultural or religious differences or sensitivities.
- ***being well taught:*** as with other parts of the curriculum, a good teacher can bring a subject to life.

5. Role of main players in delivering financial education to schoolchildren

Teachers and volunteers

Financial education is generally delivered by teachers. It is important, in such cases, that the teacher has the knowledge, skills and confidence to provide effective financial education. There is a risk that (for example) a mathematics teacher who is asked to deliver financial education will pick out the mathematical elements of the issue he or she is teaching, but will not feel sufficiently comfortable to discuss with the students attitudinal and behavioural aspects of the issue. In this sort of example, the mathematical element may be entirely satisfactory, but the student is unlikely to receive effective financial education.

Financial education is sometimes delivered by financial services staff or others (for example, staff of consumer advisory bodies or community-based financial educators) with relevant experience, often in conjunction with a teacher. Outsiders can bring technical knowledge and first-hand experience of dealing with the subjects they are covering and can provide a different perspective on issues. On the other hand, some may lack expertise in delivering information and messages in a classroom context, which could adversely affect the effectiveness of the intervention. Some schools have faced practical difficulties in arranging for outside experts, who may in principle be willing to help, to commit time some weeks in advance. Schools can also have concerns that the involvement of someone from a commercial body could be perceived as a marketing ploy.

Some experts[16] feel that financial education will generally have a greater impact on students if it is delivered by teachers or – where it is delivered by outsiders – if the teacher is present and is clearly engaged. This is because the teacher knows the students' abilities and backgrounds and understands how to

[16] Based on discussions with experts consulted in the course of the present study.

make topics engaging for them and how to deliver appropriate learning outcomes. The active involvement of teachers can also help to ensure that financial education continues to be delivered within the school in circumstances where outside experts are no longer available to come in to the school.

In the UK, pfeg, in conjunction with the Institute for Chartered Accountants in England and Wales (ICAEW) and GE Money, has developed a website which aims to help volunteers from the financial sector work effectively with schools in delivering personal finance education. The website helps volunteers understand issues such as the curriculum, school culture and current challenges and opportunities in developing financial capability. Volunteers are given ideas and suggestions about how they can use their knowledge and experience to contribute to student learning and guidance on how to get the most out of their relationship with a school. The website also enables volunteers to match their individual expertise to the needs of local schools and enables schools to register for support from a financial sector volunteer. The website is currently being piloted with volunteers from ICAEW and GE Money, with a view to its being available to other organisations later in 2008.

In the US, Junior Achievement (JA), a non-profit organisation, provides trained volunteers, who mainly come from the business sector, to offer "real-world" perspectives on financially literate behaviour. These are provided in the course of frequent, coordinated classroom visits. This programme has reached around four million students.

In Ireland, senior cycle students (generally, aged 15-17) have the option of studying a practical programme with a strong vocational emphasis called the Leaving Certificate Applied (LCA). Social Education, a compulsory subject studied as part of the LCA, addresses a range of personal finance issues that are examinable. In the course of studying the relevant module, the teacher and students are required to invite a representative of a local financial institution into the classroom for a round-table discussion that relates to personal finance. The vocational nature of the LCA programme also allows for some discussion of the nature of work in the financial services industry.

Availability of teacher training and support

Teachers are like others in the population: many are not very capable or confident when it comes to managing their money. Without training and support, they are unlikely to be able to provide good financial education and will probably avoid covering the subject – or, at least, covering the most challenging aspects of the subject – if they can.

While teachers who deliver financial education do not need to have in-depth knowledge of financial products and services, they do need to understand underlying financial management principles, to be able to relate financial education to everyday situations and to know where to go for reliable and impartial information on topics on which they do not themselves have detailed knowledge. They also need to be comfortable in dealing with sensitive personal, and sometimes controversial, issues; to have the ability to empathise with young people's interests and concerns; and to be able to make effective use of a wide range of teaching methods – for example, group work, discussion, simulations, games and the internet – and to have the ability to incorporate external contributors into the learning process. And they need to know how to access high quality materials and tools to enable them to deliver effective financial education in the classroom.

So, teacher training and support needs to provide teachers with a grounding in money management skills and knowledge, to equip them to deliver financial education in an engaging and effective manner, and to show them how to access relevant materials and tools. This will help teachers to feel confident and competent, which will in turn help to ensure that programmes, resources and initiatives are used effectively in the classroom.

To the extent that financial education is an optional subject, it is more likely that schools and individual teachers will opt to cover the subject if they can be confident that they will be supported by effective training and other support and that high quality materials and other tools are available on which they can draw.

There are many examples of training schemes – both for initial teacher training and continual professional development – which have been developed to equip teachers to provide high quality financial education. There are also examples of other sorts of support arrangements which have been put in place:

- in Australia, the Financial Literacy Foundation established a national Reference Group to develop a National Consumer and Financial Literacy Professional Learning Strategy in order to support teachers in the delivery of effective consumer and financial literacy education. The Foundation is currently developing a professional learning package and support materials to build teacher capacity and confidence in delivering the Consumer and Financial Literacy Framework. The package, which will include a Facilitators Guide and a Teachers Guide, will be published by June 2008. The accompanying website [17], which will become live in June 2008, will support the package and the training of teachers nationally;
- in Malaysia, Bank Negara Malaysia, in collaboration with the Ministry of Education and financial institutions, arranges workshops to train teachers in charge of Student Financial Clubs (SFCs). The training is part of the teachers' continuing professional development. The selection of teachers to attend the workshops is at the discretion of school headteachers. The Ministry of Education and financial institutions involved with individual schools have observed that teachers who have attended the workshops are motivated and more excited in conducting financial education activities: hence, Student Financial Clubs at their schools tend to be more active and membership has increased. The knowledge gained during the workshops has also helped teachers in managing their own personal finances. In addition, a guidebook for teachers in charge of SFCs, prepared by Bank Negara Malaysia in collaboration with the Ministry of Education, and lesson plans for teachers with outline modules and activities on financial education that can be conducted during SFC meetings, have been distributed to all schools;
- In Singapore, the Ministry of Education (MOE) has developed resources for teachers to enable them to include financial literacy concepts in relevant subjects at the primary and secondary school levels. MOE provides teachers with lesson plans as well as a CD-Rom entitled "Promoting Financial Literacy in Schools" which comprises definitions, illustrations, case studies, templates and statistical information. Sessions are also organised for teachers to share their best practices to deliver financial literacy lessons effectively. In addition, MOE works with MoneySENSE and the CPF Board and collaborates with other external organisations such as the National Institution of Education and Singapore Management University to develop financial literacy seminars and workshops for teachers;
- in British Columbia, the securities regulator, the British Columbia Securities Commission (BCSC), has prepared a comprehensive financial life skills programme for teachers to use free of charge. BCSC trains teachers to use the programme through a "webinar" (an interactive, real-time, web-based training programme);
- in the US, teacher training, provided by Cooperative Extension educators and others across the country, is a critical component of the NEFE High School Financial Planning Program;
- in the state of Wisconsin, the National Institute of Financial & Economic Literacy, in partnership with the Wisconsin JumpStart Coalition, offers a series of week-long teacher-training courses

[17] www.financialliteracy.edu.au

during the summer on a college campus. The aim is to provide teachers with content, materials and skills to teach and promote financial literacy in their classrooms and communities. The curriculum is delivered by a mix of business and academic professionals;

- in England, pfeg offers a comprehensive programme of support for teachers of those aged 11 and above, as part of a programme called Learning Money Matters. The aim is to have supported 4,000 of the 6,000 secondary schools in England by 2010/11. Teachers are given the opportunity to work with pfeg's trained consultants, who are experts in how to deliver effective financial education. In addition, pfeg has recently launched a programme, called What Money Means, for teachers of children aged 7-11. Funded by HSBC Bank, this programme seeks, among other things, to place 10,000 of HSBC's own employees to support teachers in schools.
- among the resources available to teachers in New York State are two Practical Money Skills for Life (Visa USA) courses, each of which comprises self-guided online training followed by written coursework which the teacher sends to an assessor.

6. Assessing and recognising student progress and good practice in school

Assessing student progress and qualifications in personal finance

Generally, there seems to be little specific assessment made of students' progress, except where they take a qualification in personal finance. Where financial education is delivered as part of other subjects, those subjects may well be assessed; but there is no specific assessment of the financial education elements. In some cases, students may be asked to complete evaluation questionnaires; but these often focus on how interesting and relevant they found the course, rather than seeking to test students' learning.

Learning outcomes can be set, and progress can be measured, in the absence of formal examinations. But formal courses, accompanied by examinations and qualifications, can help to ensure a coherent curriculum and a clear focus on learning outcomes. Nevertheless, governments and schools may well decide that there is not sufficient room for another qualification, except for those students who opt to take a specialist course in personal finance.

In most countries, there are few if any examples of specialist qualifications in personal finance. In the UK, however, there is a growing number of specialist qualifications: for example, the IFS School of Finance offers four levels of qualifications for those aged 14-19; and the Award Scheme Development and Accreditation Network (ASDAN) offers personal finance awards which contribute towards nationally recognised certificates. The Assessment and Qualifications Alliance (AQA) has developed free-standing mathematics qualifications, two of which focus on personal finance as contextual areas for assessment. A third advanced level qualification is under development. In Northern Ireland, students are required to be assessed on mathematics, the syllabus for which stipulates areas of financial knowledge and understanding.

In the Republic of Ireland, students studying the Leaving Certificate Applied (LCA) are examined in all compulsory subjects, including social education. Elements of the social education course address personal finance issues and are, as such, examinable. Similarly, students at junior cycle (aged 12-15) and senior cycle (aged 15-17) studying the mainstream Junior Certificate and Leaving Certificate who choose to study business related courses are examined in certain elements of personal finance.

In 2007, the US Treasury's Office of Financial Education worked with four economists to develop a new assessment tool for high school students older than 13 years of age. For 2008, Treasury plans to use the tool to roll out a student recognition programme called the Financial Literacy Challenge. Designed to widen the base of support for financial education in US high schools, the voluntary Challenge will be used to determine and reward high levels of financial literacy. The Challenge is based on national personal finance education standards. The 35 question, on-line test will be offered from late April to mid-May. Teachers will be invited to select any day within the testing window to participate. Students with scores in the top 25th percentile of national scores will be recognised by Treasury.

Awards for local programmes

The availability of awards for successful financial education programmes can help to incentivise schools, teachers and students.

Bank Negara Malaysia collaborates with state education departments to make awards to active schools, teachers and students in Student Financial Clubs in every state. The Bank also provides prizes to schools that register the most number of students as duitsaku.com members. In addition, financial institutions organise competitions at their adopted schools and provide prizes for students who diligently plan their finances using the Pocket Money Book. State Education Departments organise co-curriculum award programmes annually for outstanding schools, teachers and students.

In England, Wales and Scotland, the Royal Bank of Scotland, in association with pfeg and the Daily Telegraph, launched in 2008 an Awards Scheme[18] with categories for:

- school award for best all-round approach to personal finance education (PFE);
- school award for most original idea in the delivery of PFE;
- award for most innovative use of teaching resources in PFE;
- teacher award.

In the US, the federal government recognises best practices and provides grants. For example, the Department of the Treasury's Office of Financial Education evaluates financial education programmes to determine whether they qualify for a John Sherman Award for Excellence in Financial Education. The analysis is based on the Eight Elements of a Successful Financial Education Program, which are criteria established by the Office of Financial Education.

[18] Details are available at http://www.pfe-awards.co.uk/site/index.php

SECTION 2

REVIEW OF LITERATURE ON THE EFFECTIVENESS OF FINANCIAL EDUCATION PROGRAMMES IN SCHOOLS

1. Challenges in undertaking research

In many of those countries which have developed financial education programmes, little or no research (either on financial education programmes for students or more generally) has been undertaken into the effectiveness of those programmes (see, for example, O'Connell (2007 and Lyons, Palmer, Jayaratne and Scherpf (2006). This may be in part because, in several countries, financial education programmes are in their infancy and the focus to date has been on designing programmes and getting them under way, rather than on putting in place research programmes.

The relative lack of research in this field is not sustainable in the longer term since, in the absence of research, evidence will not be available to policy makers about what works well. It will therefore be difficult for them to make informed judgements either on how much priority to give to, and how much resource to provide for, financial education; or on how to focus financial education programmes so that they are as effective as possible. Other funders will also wish see evidence that the programmes they are funding are having a positive impact.

Most of the research which has been conducted on the impact of financial education provided to students has focused on the financial education of students in schools. This is not surprising, given that the overwhelming majority of financial education of students has been aimed at those of school age, rather than at students in colleges or universities.

Research on the impact of financial education programmes is intrinsically challenging. Among the reasons for this are:

- there is no general agreement about what a financially educated student, of any particular age, should be expected to know or about how such a person – either currently or in the future – ought to behave. What constitutes financially capable behaviour can depend, to a considerable extent, on the individual's particular circumstances;
- there is similarly no consensus on what should be measured. Evaluations range from knowledge about various financial matters through to more subjective measures such as attitudes, satisfaction with the course, self-confidence in managing one's money and self-reported behaviours (either actual or intended);
- both those running programmes and those participating in them may have little incentive to take part in evaluation exercises. Educational bodies may be unwilling – for example, as a result of timetable pressures – for students to be tested on what they have learned through financial education programmes. Moreover, those individuals who are motivated to participate in evaluation exercises, particularly longitudinal studies, may not be typical of the generality of those who participated in the programme in question;

- financial education programmes are designed to influence future behaviours, rather than merely current behaviours. However, participants may be reluctant to provide information about their personal finances, despite being given assurances of anonymity. Furthermore, there may be ethical objections to the provision of the sorts of personal data which would enable longitudinal studies to be undertaken. It can be difficult to keep track of people's contact details over a period of time. And it is also possible that knowledge by individuals that they will be participating in future evaluations could influence their actual behaviours;
- it can be difficult to establish both a causal link, and the direction of causation, between participation in financial education programmes and participants' knowledge, attitudes or behaviours.

There is, as yet, no clear evidence as to what works best. Nevertheless, a number of research studies have been undertaken which, taken together, offer insights into what seem likely to be promising ways forward.

2. Some key studies

Much of the research which has been undertaken has taken place in the US. Since 1997, the Jump$tart Coalition has undertaken a series of surveys of 17-18 year old High School pupils who have taken a financial education course. From 2000, the survey has been conducted every two years. The survey comprises around 50 multiple-choice questions,of which 30 are the core financial literacy questions and the remainder are to establish information about the respondent . The financial literacy questions, which are designed to test financial knowledge, attitudes and behaviour, cover four broad areas:

- income;
- money management;
- saving and investing;
- spending and credit.

The test is administered to thousands of pupils drawn at random from schools which opt to participate in the survey. Averages score have been low each year the survey has taken place and have declined overall since the survey was first undertaken:

1997 – 57.3%

2000 – 51.9%

2002 – 50.2%

2004 – 52.3%

2006 – 52.4%

2008 – 48.3%

On the other hand, the proportion failing the exam (ie those who scored less than 60%) fell from 65.5% in 2004 to 62% in 2006.

Jorgensen and Mandell (2007) found that, in the five Jump$tart surveys which had been conducted in the period 1997-2006, the scores of native Americans had been consistently among the worst in the overall population.

Mandell (2008b) observes that "one of the strongest, and most depressing findings from the Jump$tart surveys is that students who take a full semester high school class in money management or personal finance are no more financially literate than students who have not taken such a course".

On the other hand, some questions in the Jump$tart survey seem specific to a course of learning, rather than being necessary for good financial practice[19]. The surveys also rely on students' self-reporting, which may not be accurate, of whether or not they have received financial education. Moreover, they do not distinguish between different types of financial education programmes.

The 2006 survey enabled two possible reasons why money management courses had not been more successful to be examined. The first was that students might not appreciate the personal responsibilities which they would face in the future: the survey indicated that this was not generally the case. The second was that teachers might focus on the facts of financial management, to the exclusion of the wider economic picture. On this, the survey found that those who took an economics course did a little better than others in the financial literacy exam.

Some commentators have suggested that financial education programmes are likely to be most successful if they focus on financial decisions which students will shortly be making. However, Mandell (2006) found, on the basis of an analysis of data from Jump$tart surveys, that, of the students who had purchased a product, those who had taken a financial education course did no better, on the whole, in respect of questions relating to the product than those who had not taken such a course.

Mandell (2008a) analysed a pilot study in which children at ten public middle schools in the Chicago area watched an improvisational play, performed by professional actors, which illustrated the benefits to young people of saving. The actors first talked with the students so that they could adapt the play to local circumstances. The students completed questionnaires, both before and after watching the play, containing factual, attitudinal and behavioural questions relating to saving. Mandell found that students demonstrated a small increase in knowledge (an increase in average scores from 64.1% to 68.9%) after having seen the play and that this was most pronounced among younger students, in the 6th grade (whose scores increased from 54.1% to 64.3%). He also found some positive attitudinal change, but was not able to find behavioural differences in terms of their savings behaviour period in the most recent month. Mandell makes the point that this initiative was cost-effective, in that the play was put on for a large audience and lasted for only one hour.

One element which has consistently been associated with higher scores in the Jump$tart survey is a stock market game (Mandell, 2008b). Since 2000, students who have taken part in the game have achieved an additional 3-4 percentage points compared with their peers. Mandell suggests that the use of activities which are interactive, fun and relevant could help to raise financial literacy levels somewhat.

Mandell & Klein (2006) found that motivational factors had a significant and positive relationship with financial literacy. A conclusion which can be drawn from this is that financial education courses should place emphasis on the benefits, in terms of future lifestyles, which successful money management can bring and keep stressing to students the importance of being financially literate to safeguard their futures.

Bernheim, Garrett and Maki (1997) compared US states which required the provision of consumer education (around one-half of which specifically required the provision of personal financial education) with those which did not do so. They found that (based on self-reporting by survey participants) savings rates were approximately 1.5 percentage points higher for those adults who, when they were at school, had

[19] See, in this context, O'Connell (2007).

entered the affected High School grade five years after the imposition of a consumer education mandate, compared with those who had not been exposed to such a mandate. The authors suggest that early financial education may, among other things, increase an individual's comfort and familiarity with financial matters, thereby removing psychological barriers which impede proper decision-making: they draw an analogy with the development, at an early age, of computer literacy, which appears to have a long-term impact on an individual's general level of comfort with computers. It is noteworthy that not all of those in the study who received consumer education will have received a financial education component: the study does not differentiate between those who did, or did not, receive financial education as part of a consumer education course.

On the other hand, Mandell (1998) found that students in states which mandated the teaching of consumer education or personal finance did not, on average, achieve higher financial literacy scores than their contemporaries from states where there were no such mandates.

However, Tennyson and Nguyen found that, while financial education mandates are not generally associated with higher students' scores, students in states which required specific financial education course work scored significantly higher than those in states which did not do so.

Mandell (2005) found, on the basis of an analysis of the 2004 Jump$tart survey, that while students who take a course in money management or personal finance may not become more financially literate, as measured by test scores of what they know, they are more likely (according to self-reported behaviours) to save. He commented that "Perhaps we have focused too much of our time and resources on measuring financial literacy, per se rather than measuring other, more important, output variables, such as savings, spending and credit behavior. Or perhaps, we should utilize a broader measure of financial literacy, which includes positive financial behavioral changes as an output."

Boyce and Danes (1998) evaluated the National Endowment for Financial Education (NEFE) High School Financial Planning Program. This aims to teach students about basic financial planning concepts and to illustrate how these concepts apply to everyday life. Boyce and Danes found that 29% of participants started saving and 15% started saving more. Comparing financial knowledge and behaviours 3 months after the end of the programme with those before starting the programme, 37% had improved skills for tracking spending, 47% knew more about the cost of credit, 38% had improved their knowledge of investments and 38% felt more confident about managing their money. These findings were based on students' answers to questions about eight financial behaviours, three questions to test their financial knowledge and two questions about their financial confidence. The questions were administered before they participated in the programme, immediately after this and three months later. Immediately after studying the curriculum material, there was a statistically significant increase on all the financial knowledge, behaviour and confidence questions. Three months after completing the curriculum, students had statistically significant increases, compared with immediately after they had completed the curriculum, on each of the questions: students had put into practice (particularly through maintaining a savings account), during this period, what they had learned through the curriculum. In addition, teachers reported marked improvements in financial knowledge, attitudes and behaviour of students following their participation in the programme. Over two-thirds of the teachers who responded said that they were very satisfied with the content of the curriculum, about 60% felt that the curriculum was relevant to their students and about 50% were quite satisfied with their own confidence in teaching personal finance.

A later study by Danes (2004) of the NEFE High School Financial Planning Program Curriculum similarly found that students reported significant improvements in their knowledge, behaviour and confidence immediately after they had studied the programme and that, three months later, the improvements had continued and even increased.

Hilgert, Hogarth and Beverly (2003) found that financial knowledge was positively correlated with (self-reported) recommended financial practices. However, the authors pointed out that the research did not establish the direction of causation (that is whether better knowledge led to more capable behaviours or, on the other hand, whether those who were more financially active acquired more knowledge as a result).

Varcoe and Fitch (2003) evaluated the “Money Talks: Should I be Listening” curriculum, developed by a University of California Cooperative Extension team. In order to develop a programme which teenagers would readily use, teenagers were surveyed prior to the development of the programme to establish what topics they thought were relevant to them, what sort of educational formats appealed to them and when they would like to receive information. The findings indicate that the programme which was then developed had improved students' knowledge and had led to changed behaviours. The authors suggest that teenagers are more interested in learning about issues which they see as directly relevant to them at that time. They also consider that it is important for materials to be interactive (for example, interactive games and videos).

Fabrizio, McLaughlin & Associates evaluated Visa’s Practical Money Skills Program (2005). A control group and a test group of high school seniors were surveyed in Spring 2004 on basic knowledge of personal finance matters. The test group was then exposed to a three-hour seminar, using Visa’s Practical Money Skills Curriculum, during May-June 2004. Both the test and control groups were re-contacted three times over the following six months or so, when the individuals were either attending college or were in the work force. The test group showed increased knowledge, from 67% to 81%, following the instruction and performed better than the control group on other aspects which were measured (for example, whether they currently had a budget; and spending beyond their means).

In the UK, research has been undertaken into the effectiveness of the Excellence and Access programme, which was run by pfeg (Personal Finance Education Group). This programme has now been superseded by the Learning Money Matters programme, but the two programmes share many of the same characteristics.

The Excellence and Access programme sought to increase teachers' skills and confidence in delivering personal financial education by providing practical support for teachers through advice, training and teaching materials. In doing so, the project aimed to help teachers to:

- identify young people's attitudes to risk and money management;
- build young people's financial skills, judgement and confidence;
- equip young people with the ability to make informed and independent financial decisions.

The evaluation used both qualitative and quantitative research methods. Taylor (2004) found that the project “reached and influenced a large number of teachers and students, raising teacher confidence and developing a rich and extensive source of materials and guidance. It also demonstrated that it was possible to improve students' financial awareness”. Students who had participated in the project's activities were enthusiastic about, and enjoyed, personal finance work. Similarly, teachers who had participated were enthusiastic and committed. The research also found that young people's experiences outside school produced firmly held views and beliefs on financial matters. The questionnaires administered to teachers were based on self-assessments of, for example, their confidence and skills. Similarly, questionnaires were administered to pupils designed to assess their levels of confidence in financial matters: this demonstrated that pupils generally lacked confidence. While, therefore, the results of the evaluation were positive, there was no quantitative measure of the impact, in terms of behaviours, which participation in the programme had had on either pupils or teachers.

Learning Money Matters – the financial education programme which pfeg is currently delivering – is being evaluated by the National Foundation for Education Research (NFER). Early results indicate that 99% of teachers had been very or quite satisfied with the support give by pfeg consultants, in particular in terms of access to resources and tailored help in putting together a personal finance education programme.

Also in the UK, the IFS School of Finance has developed qualifications in personal financial education, aimed at pupils aged 14-19, which are available to all schools and colleges which choose to make use of them. The IFS commissioned research into the impact of these qualifications on students' careers and aspirations. The findings were based on the 2004/05 cohort of a three year longitudinal study. The qualifications mainly attract those pupils with a vocational orientation towards the subject, though they also attract some students who are more academically oriented. Davis et al (2006) found that the IFS personal finance course impacted positively on students':

- personal financial management (for example, 50% of course participants said that they had made changes to the way in which they spent money; and there was a reduction in the proportion of students who owned one or more credit or store cards);
- financial "self-efficacy" (i.e. beliefs about one's own ability to successfully perform a task) and knowledge (for example, 80% of course participants reported that they understood money issues better since undertaking the course);
- expected choice of subjects to study when going on to higher education;
- intention to consider pursuing a course in financial services.

The above findings were based on questionnaires administered to students who were currently taking the course. The findings were broadly reaffirmed in a follow-up survey conducted six months after students had completed the course (that is the benefits were not merely transitory).

In England, the Office for Standards in Education, Children's Services and Skills (Ofsted) (2008) undertook a small survey of schools and colleges in 2006/07. This was not a formal academic study, but was designed instead to identify examples of good practice. Although the sample of schools and colleges selected for the study was skewed towards those where Ofsted expected to see examples of good practice, its overall conclusion was that the quality of provision of financial education varied considerably between schools. It concluded that the most important factors underpinning good practice were:

- senior managers demonstrated a strong commitment to personal finance education for all students;
- a member of staff, often at a senior level, had responsibility for the development of personal finance education across the school or college;
- dedicated curriculum time was provided, often supplemented by work through other subjects and "off-timetable" days;
- teachers were confident in their knowledge of personal finance and used contexts that were relevant to students;
- lessons engaged students in relevant and meaningful tasks and involved them in discussion and debate;
- effective use was made of resources, including the expertise of external agencies.

Russell, Brookes and Nair (2006) reported on their evaluation, in 2005, of a financial literacy trial programme at a Melbourne secondary college for students in years 7 and 8. The main aim of the programme was to increase students' knowledge and understanding of financial issues relating to mobile phones and credit cards. Around 60% of the students found the lessons very useful or useful; 94% reported an increase in their understanding of mobile phone plans and charges; and 95% reported an increase in their understanding of credit cards. There were also indications that participants in the programme were keen to learn more about other topics which would help them to manage their finances better now and in the future.

This appetite for financial education is also borne out by Capital One's 2006 back-to-school survey in the US, which found that 49% of teenagers would like to learn more about money management, but that only 14% had experienced a financial education class in school.

3. Conclusions

Some studies indicate that financial education has had little or no impact on recipients. In particular, in each of the Jump$tart surveys which have been conducted since 1997, the average score has been less than a pass mark and has been less than the average score achieved in 1997. Those who have taken a financial education course have been found to be no more financially literate than their peers.

On the other hand, some other studies have suggested either that particular programmes have had a positive impact on recipients' financial knowledge or have increased participants' propensities to save in later life.

So, is the glass half empty or half full? It seems reasonable to conclude that the glass is half full and has the potential to become a good deal fuller in the future. The reasons for this view are as follows:

- in many countries, financial education is in its infancy and research into how best to deliver it is – if it exists at all – barely out of the starting gate. It would certainly be premature to conclude, on the basis of research to date, that financial education has no place in educational establishments. More generally, there seems no reason to reach the view that while a whole range of other subjects, many of which have little or no obvious direct relevance to the well-being of students who study the subject, can usefully be taught in schools, financial education cannot be delivered effectively;

- some of the research which has been carried out to date has treated financial education as if it were homogeneous: that is, it has not distinguished between different types of programme. It is reasonable to assume, however, that programmes will vary in their effectiveness. There is an urgent need for a much fuller range of research to be carried out than has been undertaken to date in order to determine how to deliver financial education most effectively – which types of programmes work best for different types of target audience. And there is a need for more research into the medium- and long-term impact which financial education, of different kinds, has on actual behaviour. It is good practice for research to be designed into a programme from the outset, rather than for it to be grafted on to a programme after its inception;

- in view of the detriment caused by poor levels of financial capability, the impact of even small improvements would, when aggregated across the population as a whole, be significant;

- there is evidence, some of it largely anecdotal, from teachers that they have themselves become more confident about providing financial education to their students as a result of participating in well designed programmes and that their students have benefited from being exposed to these programmes. While it is possible to dismiss some of these findings as lacking rigour, it seem reasonable to give weight to the views of teachers, bearing in mind their broad experience of what constitutes an effective educational intervention.

Nevertheless, further evaluation and research is needed to provide a more solid basis for the view that the right kinds of financial education can, if delivered well, provide real benefits.

SECTION 3

DRAFT RECOMMENDATIONS

The draft recommendations[20] below are intended to assist those working in the field of financial education for students. They take account of the experience of those countries which have been surveyed as part of this study. They also draw on the OECD's earlier work on financial literacy, notably, its survey *Improving Financial Literacy: Analysis of Issues and Policies* and, in particular, its *Recommendation on Principles and Good Practices for Financial Education and Awareness*, adopted by OECD governments in 2005. One of the key Principles is that "Financial education should start at school.....People should be educated about financial matters as early as possible in their lives."

1. financial education for students should be provided as part of an overall strategy to improve financial capability

A range of support needs to be provided – ideally, comprising education, information and advice – in order to meet the challenge of equipping people to manage their money well. Financial education programmes for students can play an important role. But in order to ensure that support is available for all groups within society, this should be within the context of an overall strategy – preferably at national level – to improve financial capability.

Leadership and coordination

2. priority should be given to persuading policy and educational decision-makers about the importance of providing financial education to students

In order for financial education to be provided to students, policy and educational decision-makers must be willing to provide room for it in the curriculum. It is essential, therefore, to identify the key decision-makers – whether at national, regional or local level – and to persuade them to incorporate financial education within the curriculum and to provide other necessary support for the delivery of effective financial education.

Among the factors which are likely to be taken into account by decision-makers – and which those seeking to persuade them should therefore also take into account – are whether financial education would contribute to legislative or other requirements relating to the contents of school curricula; and whether high quality materials, together with training and other support for teachers, are readily available – and, if so, at what cost.

3. there needs to be clear leadership and coordination at national level and at other key levels, including in individual educational establishments

Without an overall strategy and a credible leader within a country, efforts to provide financial education are liable to be piecemeal and duplicative and to lack an effective focus for communication with

[20] The draft recommendations reflect the views of the author and are released under his responsibility.

decision-makers and other stakeholders. Leadership can be exercised by government, a government agency, a financial services regulator or the central bank. These organisations are usually also the main, or even the only, providers of the resources which are needed to develop and sustain financial education programmes. Effective leadership and coordination is particularly important given that, typically, a wide range of partners and stakeholders are involved in the development and delivery of financial education programmes.

For much the same reasons, there also needs to be clear leadership and coordination within individual educational establishments. Without this, educational provision within the establishment is liable either to fail to take place or, in so far as some sort of provision occurs, to be uncoordinated and ineffective.

4. **a wide range of organisations have an interest in seeing improvements to current levels of financial capabilities: they should be encouraged to contribute to the provision of effective financial education**

Governments, financial services regulators and the financial services sector, as well as individuals themselves, stand to benefit if people are better equipped to manage their money well. In addition, financial education can help to bring to life other educational subjects. There are therefore many organisations which potentially have an interest in contributing to financial education initiatives.

Relevant organisations – which could include relevant government departments and non-governmental organisations, regulators and central banks, financial services firms, foundations connected with the financial services industry, utility companies and mobile phone providers – should be encouraged to get involved.

There need to be effective arrangements to give teachers confidence that materials and tools produced, or funded, by commercial organisations are free from commercial bias and marketing devices (such as excessive use of company logos). Arrangements to achieve this can be incorporated within accreditation arrangements (see Recommendation 12 below).

Consideration should also be given to establishing arrangements to match trained volunteers with individual educational establishments.

Embedding financial education in the curriculum

5. **where possible, financial education should be included within the school curriculum as a compulsory element. It should either be included as a stand-alone subject or should be incorporated within other subjects**

There are many competing demands on schools' curricula. The surest way of securing a place for financial education is for it be included as a compulsory part of the curriculum. However, this may not always be achievable, particularly in countries where financial education has yet to build up a track record of successful delivery. In such instances, the case for making the subject compulsory should be kept under review.

The incorporation of financial education as a stand-alone subject ensures that there is a clear focus on the subject. On the other hand, unless financial education is made compulsory, this could reduce the number of students who receive financial education. A course focused on financial education could be seen by students as boring and not relevant to them. An alternative is for financial education to be incorporated into other subjects, such as mathematics, economics, citizenship, business studies and history. In such cases, it is important that it is not merely (say) good mathematics which is provided, but also good financial education.

6. **financial education should be provided to schoolchildren from as early an age as possible and should continue to be provided as they progress through school**

As with other subjects, there is advantage in beginning financial education at an early age and continuing to provide financial education as the student progresses through school. In that way, schoolchildren can build an understanding over a period of years. For pupils of any age, the subject matters and materials used need to be selected so that they are suitable for the abilities and interests of the pupils concerned and so that any cultural or religious differences or sensitivities are respected.

7. **students should receive a planned, coherent and comprehensive programme of financial education**

Financial education programmes need to be carefully planned so that students receive a coherent programme which covers a comprehensive range of subjects, rather than focusing only on a few issues.

8. **financial education should be provided in ways which students will find relevant and engaging**

Students are much more likely to take an interest in financial education if it is presented in a compelling and appealing manner and if they can see that it is relevant and useful to them, either immediately or in the foreseeable future. Conversely, materials or tools which are dull or of little apparent relevance are unlikely to be effective.

Among the characteristics of programmes which students seem to find engaging are that they are relevant to the lives of the students, interactive and experiential, tailored to the interests and abilities of the students and are well taught.

Financial education is likely to be most effective if students receive the lessons over a period of time, from a variety of sources and in a variety of ways as part of a coordinated and coherent programme.

9. **there should be a clear focus on developing financially capable behaviours and responsible attitudes, as well as on developing knowledge and skills**

The purpose of financial education is to improve people's understanding and to develop their skills and confidence to manage their money well throughout their lives. It is important that financial education initiatives should include a clear focus on attitudes and behaviours and not merely on knowledge and skills. Little will have been achieved if people are equipped with the requisite knowledge and skills, but they fail to put these into practice.

Supporting teachers

10. **teachers should either deliver financial education programmes themselves or, if a programme is delivered by others, should be clearly engaged in the process;**

Outside experts can play a useful role in the delivery of financial education in the classroom. But while their technical knowledge and first-hand experience of dealing with the subject can be valuable, they may lack expertise in delivering financial education in a classroom context. Financial education is likely to be most effective if it is delivered by teachers or – where it is delivered by outsiders – if the teacher is present and is clearly engaged.

11. effective arrangements should be made to provide training for teachers, both as part of initial teacher training and as part of existing teachers' continuing professional development

In order for financial education to be effective, teachers (or other providers) need to have the necessary competences and confidence to teach it well. Training should be included, for those teaching relevant subjects, in initial teacher training courses. But this is not sufficient on its own. Training needs to be provided also to existing teachers: many will not have covered financial education as part of their initial teacher training; and even those who had received relevant initial teacher training are likely to benefit from refresher courses from time to time, including to give them the opportunity to learn about new techniques and methods for delivering financial education. Teachers need to be comfortable in discussing issues money issues with students in circumstances where there are often no “right” answers.

12. teachers need to have ready access to materials and tools which can help them to provide effective financial education

It would be unrealistic to expect that many teachers will have the time, expertise or inclination to search for the most effective materials and tools to support financial education initiatives. Instead, there should be a single source (or, if more than one, a small number of sources) of materials and tools which teachers can be confident about drawing on. This source can act as a clearing house. The source (or sources) should be promoted to teachers so that they are aware how to access support. The source should be well organised, and contain clear signposting, so that it is easy for teachers to identify materials and tools which are suitable for the teacher's intended purpose (for example, the age group which will be receiving the financial education).

Teachers need to have confidence that materials and tools are of high quality, effective and free from commercial or other bias. Arrangements should be made – possibly through a well publicised accreditation scheme – to enable teachers to identify those materials and tools which are of high quality.

13. organisations which are considering developing materials or tools should first assess the scope for using, or adapting, materials and tools which have already been developed, either in their own country or overseas

There are many examples which can be drawn on of high quality materials and tools. Those wishing to contribute to financial education initiatives are often motivated to develop new materials. But unless a careful assessment is made of what is already available, there is a risk that they will merely develop what is in effect a different – and perhaps inferior – version of materials or tools which are already available. A proliferation of materials and tools designed to provide essentially the same solutions can be confusing to teachers and others working in the field, rather than helpful to them.

Those organisations which are considering developing new materials or tools should therefore first consult national experts to understand where any gaps in existing provision may lie. In addition, national experts should look to see what has been developed in other countries and whether – subject to securing any necessary permissions – it would be more effective and efficient to adapt or adopt one or more of these, rather than to commission new materials or tools.

Recognising achievement

14. learning outcomes should be established; and student progress should be measured

Learning outcomes should be established, so that there is clarity about what the financial education programme is seeking to achieve. Students' progress should be measured, both so that the success of different parts of the programme can be assessed and adjustments made if necessary and also to motivate students.

15. consideration should be given to instituting awards, or other forms of recognition (such as qualifications), both for individual achievement and for high quality financial education schemes

It is often motivating – for students, teachers and educational establishments – to receive awards, or other forms of recognition, to mark high achievements. For students, this can include qualifications or certificates of achievement. For teachers or schools, this can include awards (including those which reflect a comparison with other schools) and certificates, which may be based on self-assessment.

The opportunity to work towards a qualification can encourage students – and their parents and teachers – to opt for financial education courses, since they will be able to receive tangible recognition of achievements.

Universities and colleges

16. universities and colleges should be encouraged both to offer financial education courses and to provide financial education support for students taking other courses

The provision by universities and colleges of financial education courses can contribute to the development of people with good skills and knowledge. By their nature, however, such courses are likely to appeal most to those who have it in mind to pursue a career connected with financial services.

Universities and colleges should therefore also be encouraged to offer to their students, regardless of the subjects they are studying, planned and coherent financial education programmes, led by student support services, which might include short courses.

Rigorous evaluation

17. financial education initiatives should be rigorously evaluated in order to build understanding of the most effective ways to deliver financial education in different contexts. There should be a focus on the impact of initiatives on attitudes and behaviours, as well as on improvements in knowledge, understanding and skills

Financial education programmes need to be evaluated so that effective programmes can be built on and replicated elsewhere and unsuccessful programmes can be modified or discontinued and to help provide evidence to convince policy and educational decision-makers of the case for delivering financial education in schools. The way in which a programme is evaluated is likely to depend in part on what is affordable and practicable. For example, it will not always be possible to undertake a longitudinal assessment. One promising way forward is the development of a standard framework, which can be tailored to be either a simple, cheap approach or a more sophisticated exercise, depending on the circumstances[21].

Given that the purpose of financial education is to improve people's understanding and to develop their skills and confidence to manage their money well, evaluations should encompass the impact of programmes on attitudes and behaviours, as well as on knowledge, understanding and skills.

[21] O'Connell (2007) sets out a standard approach (the FEE framework) which can be adapted in this way. See also the report prepared by O'Connell contained in this volume.

International cooperation

18. international cooperation should be promoted, including the use of the OECD as an international forum to exchange information and research on national experiences and to identify and exchange international best practices and guidelines

In many countries, the provision of financial education for students is in its infancy. There is much which experts in these countries can learn from the experience of those in countries which have made greater progress. Moreover, experts in countries which have made good progress can benefit from learning about developments elsewhere.

The OECD is ideally placed, in the context of its Financial Education Project, to facilitate the exchange of information and experience, including through its recently launched International Gateway for Financial Education, the development of international principles and good practices, publications and conferences.

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ANNEX A

COMPARISON OF FINANCIAL EDUCATION PROGRAMMES IN SCHOOLS IN SELECTED OECD AND NON-OECD MEMBER COUNTRIES

	Lead organisation	Part of national strategy	Public-private partnership	Age range	Compulsory or voluntary	Stand-alone subject	Qualification available for school children
Australia	The Australian Government's Financial Literacy Foundation	Yes – part of national strategy led by Financial Literacy Foundation	Yes	5-15	Effectively compulsory	Included in core subjects	Integrated in testing and measurement nationally for years 3, 5, 7 and 9. No separate qualifications.
Canada	N/A	No	Yes	6-18	Compulsory in some provinces	Generally, included in other subjects	None available
France	N/A	No	Yes	16-18	Voluntary	Included in other subjects	None available
Ireland	N/A	Recommen-dations for national strategy to be published in 2008	Yes	12-18	Compulsory in certain subjects	Included in other subjects	Both compulsory and elective elements are examinable
Malaysia	Bank Negara Malaysia; Ministry of Education	Yes – part of national savings promotion and consumer education campaigns	Yes	7-17	Voluntary	Generally, included in other subjects	None available
Netherlands	N/A	Yes – part of CentiQ	Yes	5-18	Voluntary, but there are some guidelines which primary school-teachers are required to follow	Generally, included in other subjects	None available

New Zealand	Retirement Commission	Under development	Yes	11-18	Voluntary	Generally, included in other subjects	Taken by small proportion of students
Singapore	Monetary Authority of Singapore; Ministry of Education Central Provident Fund Board	Yes – part of MoneySENSE national financial education programme	Yes	7-18	Voluntary	Included in other subjects	No
UK: England	Department for Children, Schools and Families; Financial Services Authority	Yes (for UK as a whole) – part of national strategy for financial capability	Yes	5-18	Voluntary, but Government expects schools to provide financial education	Generally, included in other subjects	Taken by small proportion of students
UK: Scotland	Scottish Centre for Financial Education; Financial Services Authority	Yes (for UK as a whole) – part of national strategy for financial capability	Yes	4-18	Voluntary	Generally, included in other subjects	Taken by small proportion of students
UK: Wales	Department for Children, Education, Lifelong Learning and Skills; Financial Services Authority	Yes (for UK as a whole) – part of national strategy for financial capability	Yes	7-19	Compulsory for those aged 7-16	Generally, included in other subjects	Taken by small proportion of students
UK: Northern Ireland	Council for the Curriculum, Examinations and Assessment; Financial Services Authority	Yes (for UK as a whole) – part of national strategy for financial capability	Yes	4-18	Compulsory for those aged 4-14	Generally, included in other subjects	Taken by small proportion of students
United States	US Treasury	Yes – part of the national strategy for financial literacy	Yes	4-18	Compulsory in some states	Generally, included in other subjects	Taken by small proportion of students

ANNEX B

SUMMARY OF FINANCIAL EDUCATION PROGRAMMES IN SCHOOLS IN SELECTED OECD AND NON-OECD MEMBER COUNTRIES

Australia

The Australian Government established the Financial Literacy Foundation (the Foundation) in June 2005, as a division of the Treasury. The Foundation's mission is to assist all Australians to improve their financial knowledge and to manage their money better. The Foundation provides national leadership and works collaboratively with educational authorities, business and community organisations to build social, spiritual, intellectual and financial capital in education nationally. Among other things, the Foundation is developing partnerships with relevant government, industry and community organisations to deliver quality financial literacy programmes and resources. Further information on the work of the Financial Literacy Foundation is available at www.understandingmoney.gov.au.

In 2005, the Education Ministers from each state and territory, as members of the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA), commissioned the development of a national Consumer and Financial Literacy Framework (the Framework). As part of the Foundation's work to ensure young people learn more about money, the Framework was developed by a national working party, chaired by New South Wales and supported by the Foundation. The full Framework can be accessed at www.mceetya.edu.au/mceetya/default.asp?id=14429. The National Framework for Consumer and Financial Literacy was endorsed in 2005.

The Framework is designed to ensure that all school students from Kindergarten to Year 10 receive consumer and financial literacy education. The Framework helps to ensure national consistency and coherence among consumer and financial literacy resources for young people, and supports teachers of consumer and financial literacy through professional learning. The Framework calls for a cross-curricula approach to consumer and financial literacy education for the benefit of all school students.

The Framework's dimensions of learning focus on knowledge, understanding, skills, values and attitudes and set benchmarks for consumer and financial literacy. The dimensions of learning are:

- *knowledge and understanding* is about the nature and forms of money, how it is used and the consequences of consumer decisions;
- *competence* is the application of consumer and financial knowledge and skills in a range of changing contexts;
- *enterprise* is the opportunity to use initiative, build financial capabilities and manage risk-taking when making consumer and financial decisions
- *responsibility* is appropriate consumer and financial decisions that display care for self, others, the community and the environment.

The Framework identifies broad statements of desirable learning achievements for students as they complete year 3, 5, 7 and 9 (which are the benchmarking years for testing and measurement nationally in literacy and numeracy):

Descriptions of Learning: Year 3

Students explain what money is and that money is more than notes and coins. They understand that family income can come from a variety of sources, is often limited and that individuals often have a plan or budget to use their money. They explain the reasons why they want some basic goods and services and recognise that decisions to spend can be influenced by advertising and peer pressure.

Descriptions of Learning: Year 5

Students are aware of a range of forms of money and can discuss their rights and responsibilities in everyday transactions. Students understand that money can also be borrowed through credit and be provided by government payments.

Students know about the different ways money can be kept and the importance of saving. They recognise that family income may be limited and begin to understand that matching household expenditure against income is important when considering family finances. They understand broad issues of quality of life, total family income, expenditure and savings.

They realise that advertising and peer pressure can affect choice and are aware of the social and environmental consequences of their choices.

Descriptions of Learning: Year 7

Students understand the need to plan for the future and have a more detailed understanding of the use of income. They apply critical literacy and numeracy skills to a wide range of commercial advertising and consumer situations, and analyse the potential effects of these on personal finances.

Descriptions of Learning: Year 9

Students are able to distinguish between wealth and income and are aware of the different sources of income and wealth creation. They are able to keep simple personal financial records and establish short and long term financial goals. They make appropriate choices in relation to the variety of financial services and are also aware of the financial advice available within the community to assist decision making.

Students use basic financial information to assess risk and returns in a local, national and global context. They apply critical literacy and numeracy skills to consider different forms of investments, and the advantages and disadvantages of fund-raising activities or business ventures.

Consumer and Financial Literacy is treated as a core skill and is embedded in curricula and programmes across English, mathematics, science, humanities, business, commerce, economics, technology and enterprise, civics and citizenship and information and communication technology. This is designed to ensure that all Australian students in their compulsory years of schooling will develop knowledge and understanding, skills and values in consumer and financial literacy. Consumer and Financial Literacy is integrated into the benchmark assessments for years 3, 5, 7 and 9.

The MCEETYA Framework identified professional learning as essential for teachers in primary and secondary schools. From June 2008, all teachers in Australia will be able to access professional learning in consumer and financial literacy teaching to build their capacity and to integrate consumer and financial literacy throughout the compulsory years of schooling.

In 2006, the Foundation established a national Reference Group of State and Territory education jurisdictions, Catholic and Independent sectors and Offices of Fair Trading to develop a National Consumer and Financial Literacy Professional Learning Strategy. The strategy, which was released in 2007, was informed by practitioner research undertaken by the Foundation in 2006. To support teachers in the delivery of effective consumer and financial literacy education, the Foundation is currently developing a package of professional learning and support materials to build teacher capacity and confidence in delivering the Framework's dimensions of learning from Kindergarten to Year 10.

The Professional Learning Package will:

- build teacher knowledge, understanding and skills to enable them to effectively deliver consumer and financial literacy education across the curriculum from Kindergarten to Year 10;
- take into account the professional learning needs of teachers in rural, regional and remote locations;
- support teachers in accommodating a range of student learning styles within various learning environments.

The Package, which includes a Facilitators Guide and a Teachers Guide, will be published by early June 2008. The accompanying website www.financialliteracy.edu.au, which will become live in June 2008, will support the Package and the training of teachers nationally.

Teacher training will take place through the Australian Government Quality Teaching Programme (AGQTP). The AGQTP is the Australian Government's flagship initiative for improving the quality of teaching and leadership within national priority areas in Australian schools through:

- providing funding to state and territory government and non-government education authorities for professional learning activities for teachers and school leaders;
- supporting national projects on teaching and teacher quality issues;
- equipping teachers with the skills and knowledge needed for teaching in the 21st century;
- providing national leadership in high priority areas of professional learning need;
- improving the professional standing of school teachers and leaders.

The professional learning encourages and supports teachers to look broadly at the curriculum and identify opportunities across four broad areas of study: *understanding money, consumer education, personal finance* and *money management*. These areas of study are intended to provide teachers with an approach through which they can add value to their teaching and student learning, as opposed to creating new layers of work.

Training will be provided to those currently teaching and will also be integrated into university training programmes for new teachers.

Evaluation of the professional learning project will be done at a state and territory level through the Australian Government Quality Teaching Programme (AGQTP) reporting process and then analysed to give a national picture in 2009/10.

The Foundation's Essential Elements Financial Literacy Assessment (EEFLA) establishes standards that educational materials need to meet to be listed on their website. It also sets out how the Foundation determines whether these standards have been met. Details are at http://www.understandingmoney.gov.au/Content/Education/MaterialDevelopment/default.aspx. The foundation's website lists a range of educational materials which have been assessed as meeting those standards – see http://www.understandingmoney.gov.au/Content/Education/Material/default.aspx. There are three main resources used by all state education departments and sectors:

- in primary schools, MakingCents, an on-line package, has a strong emphasis on literacy and numeracy skills and includes lesson plans, units of work, advice to teachers, games, student worksheets and web-based materials. It includes three programmes, one for each of lower, middle and upper primary school, covering: using money, budgeting and spending, and calculating the cost. The materials were developed to provide detailed support for teachers to teach something they had not traditionally taught. MakingCents also has a successful parent programme, which connects the student, school and community;
- in secondary schools, the Commonwealth Bank Foundation’s Financial Literacy Curriculum Resource is an on-line package particularly targeting years 7 to 10. It includes lesson plans, units of work, assessment tools, advice to teachers and web-based materials. It includes 12 modules that have been mapped against each state and territory curriculum;
- the Financial Basics Foundation’s Operation Financial Literacy is a 10 module teaching resource aimed at students in Years 9-10 and is supported by detailed teacher notes and student worksheets. The kit contains numerous classroom, internet and research activities, including community surveys. The programme can also be accessed on-line.

One example of how consumer and financial literacy can be integrated across the curriculum to generate engaging and relevant teaching and learning in primary and in secondary schools is the Enterprise Learning Maitland programme, which uses an enterprise education model involving parents, the community and local business. Other similar programmes include Business Week and AUSee.

Canada

Education is the responsibility of the provincial governments. As a result, financial education varies across the ten provinces and three territories. The Financial Consumer Agency of Canada (FCAC) has received a mandate from the federal government to prepare a national tool for use in high schools across the country.

In British Columbia, financial education is mandatory at the Grade 10 level under a life skills programme: the financial education component occupies about 21 hours of class time.

Financial education is mandatory in Nova Scotia at the Grade 11 level under career and life management: personal financial life skills, including budgeting, credit and banking, occupy about 15 hours of class time.

Other provinces have non-mandatory courses that contain some elements of financial education.

Financial management outcomes are included in the mandatory mathematics courses in all provinces, but there is no uniform curriculum. FCAC is undertaking a curriculum review of all provinces to support the marketing of a new financial education programme it is developing.

Financial education is provided to some schoolchildren from the ages of 6-18. Generally, it is integrated into other courses such as business, home economics and civics. Very few schoolchildren student receive comprehensive financial education.

FCAC is developing a programme which will contain modules on needs, wants and priorities; income, expenses and budgets; savings and banking; credit and debt; insurance; and investing and financial planning. The programme will be released in September 2008.

Financial education is delivered by teachers with resources provided by financial institutions, regulators and associations representing financial institutions, such as the Canadian Bankers Association. Young people who are outside the school system also receive financial education through community associations. Social Enterprise Development Innovations (SEDI) is currently piloting a financial capability for youth programme in the province of Ontario. Canadian websites with financial education material include www.cba.ca; www.cfee.ca; www.investored.ca; and www.bcsc.bc.ca.

There is no formal financial education training for teachers across the country. However, in British Columbia, the British Columbia Securities Commission (BCSC) has developed a comprehensive financial life skills programme for teachers to use free of charge. They train teachers to use the programme via a "webinar". FCAC is working with BCSC to adapt this programme to a web-based programme to be available to all teachers in Canada, regardless of whether financial education is mandatory in their particular province. The new programme is due be available in September 2008.

Junior Achievement Canada brings financial professionals into schools to deliver week-long programmes.

A non-profit organisation, Canadian Foundation for Economic Education (CFEE), is working with the province of Manitoba to create a financial literacy course for high school students.

France

Financial education is provided, on a voluntary basis, to schoolchildren of various ages through a range of subjects, for example through mathematics, history, geography, technology and economics and social sciences. At one time, economics and social sciences was mandatory in the second to last class of high school (15-16 years old): that is no longer the case, but 40% of pupils choose this option, which provides elements on family and income, though little on personal finance.

During compulsory schooling, the aim is to introduce basic concepts. In high schools (lycées) and in specialised options, more sophisticated and complex matters can be covered, for example banks, credit operations and financial instruments. There are no qualifications or awards available on financial education.

There are no standards or content specifications. Provided that national education programmes are respected, schools have flexibility to focus on specific teaching initiatives. There is little information centrally available on methods used by teachers when delivering financial education.

There are currently no specific training programmes for teachers on financial education.

Teachers generally produce their own financial education teaching tools and materials when they choose to cover the topic within the framework of their subject. Relatively few materials or tools have been developed by financial services firms or associations. The Institut pour l'Education Financière du Public has identified, as one of its priorities, the development of a dedicated teachers/trainers section of its website (www.lafinancepourtous.com) to facilitate the sharing of tools and materials which teachers or other trainers have produced. A connected priority is the development of additional teaching modules and tools, which will be available to teachers free of charge.

No specific funds are allocated within the national education budget to financial education in schools. Funds might be granted by local or regional entities, for example within the framework of initiatives in the field of consumer education. However, it is thought that any such funding is extremely limited.

Ireland

The Financial Regulator set up and chairs a National Steering Group on Financial Education, which brings together a range of stakeholders from Government, public bodies, voluntary institutions and the private sector who have an interest in improving financial education. The Steering Group is due to report in 2008 with recommendations for a financial education strategy in Ireland. The Steering Group envisages that its recommendations will seek to foster a comprehensive approach to rolling out financial education resources and initiatives across various channels and providers, including in schools. The Steering Group is not intended as an implementing body and will focus on encouraging the relevant competent bodies to implement the report's recommendations.

Financial education has been made available to students for several decades through the formal education system at second level. Students enter second level at 12-13 years of age, with the junior cycle lasting for three years and the senior cycle lasting for two or three years, typically being completed at age 18.

Financial education programmes do not exist as complete or comprehensive courses. However, the formal nationwide education system provides for elective courses at junior cycle and senior cycle. The courses in question cover wider business related curricula that contain elements of personal finance. These elements are more comprehensive during the junior cycle than during the senior cycle at second level. In addition, at second level, there is a senior cycle syllabus, the Leaving Certificate Applied, which is aimed at preparing students for adult and working life. Part of the second year of this cycle addresses personal finance issues and is compulsory and examinable.

There is currently no formal guidance on the provision of financial education in education establishments.

The Financial Regulator is piloting two school programmes relating to budgeting and account options. The first programme is a transition year (an optional 4th year of second level schooling during the senior cycle) personal development programme that encourages students to record their own ideas about the role that money plays in their lives. The intention is that, by personalising their recollections of the learning plan in their own, private, filofax-style school document, they will embed financial skills within their own personal skills set. The second programme is a syllabus-based approach that targets Leaving Certificate Applied students in classes that prepare students for adult and working life. Each student is provided with their own series of worksheets and a personal folder in which to 'file' the results of their research on account options, thereby providing them with reference materials for future use.

Financial education course materials costs are largely borne by families. Those school programmes that are being piloted by the Financial Regulator are funded by the Financial Regulator and are made available free of charge to schools and students. In addition, a range of industry bodies and individual financial service providers have developed materials which they make available to schools. The National Steering Group on Financial Education has recently completed an audit of financial education resources available in Ireland which will be included in the Group's report, due to be published in 2008.

Malaysia

Financial education is provided to school children (from7-17 years old), largely through co-curriculum activities.

The savings campaign, which was launched in 1996, provided the foundations for the promotion of financial education for schoolchildren. The long term-objective of the campaign is to nurture Malaysians to be financially savvy. The campaign is a collaborative initiative by Bank Negara Malaysia (the central bank), the Ministry of Education (MOE) and financial institutions (FIs) to inculcate the savings habit and create awareness among schoolchildren of the importance of smart financial management and planning.

The campaign has resulted in the following initiatives which have been successfully implemented:

- School Adoption Programme (SAP) – under the programme, introduced in 1997, each school is adopted by an FI (a commercial bank, development bank or insurance company). The FIs conduct activities related to banking, insurance and basic financial knowledge and provide an opportunity for schoolchildren to experience having a bank account. So far, more than 7,000 schools have been adopted by the FIs;
- Student Financial Club (SFC) – an SFC has been established in more than 2000 schools under the SAP since 1999, as part of their co-curriculum activities. Students who join the club engage in money- and finance-related activities, through workshops, visits to financial institutions, knowledge-sharing sessions and games;
- Pocket Money Book – Pocket Money Book was introduced in 1998 to educate and assist students to manage their pocket money and to take control of their personal finance. The book contains money- and finance-related articles, exercises and games. So far, around six million books have been distributed;
- Financial education website – Bank Negara Malaysia, in collaboration with the MOE, created a financial education website, duitsaku.com, as an interactive financial education tool to enhance financial literacy among students. Students can participate in contests, games, quizzes, financial calculations and other activities related to personal financial management. The website was launched in October 2004, and has so far attracted a membership of more than 85,000.

In order to encourage more financial education activities, the following additional initiatives have been taken by Bank Negara Malaysia, the MOE and FIs:

- FIs provide support and assistance to help adopted schools organise more financial education activities;
- Bank Negara Malaysia provides training materials for teachers in charge of SFC;
- Bank Negara Malaysia collaborates with state education departments (SED) to award active schools, teachers and students in SFC in every state;
- Bank Negara Malaysia provides prizes to schools that register the most number of students as duitsaku.com members;
- FIs organise competitions at their adopted schools and provide prizes for students who diligently plan their finances using the Pocket Money Book.

From 2007, students aged 17 who participate in the compulsory National Service Programme are taught various aspects of financial management, such as budgeting, managing spending by making smart financial choices and banking information. It is expected that 120,000 students per year will participate in the National Service Programme.

Financial education is provided to schoolchildren largely through SAP and SFC, which are outside the mandatory school syllabus. Within the curriculum, some elements of financial education are embedded in classroom subjects such as mathematics, living skills, moral education and basic economics. There are no financial education examinations.

Teachers in charge of SFC are provided with standard module content. However, they may vary the activities according to students' capabilities. The modules cover the following topics:

Modules for primary school students (7 – 12 years old):

- understanding of money;
- simple budgeting;
- simple decision-making;
- saving for future needs.

Modules for secondary school students (13 – 17 years old):

- setting financial goals;
- budgeting;
- financial management (including consequences of personal financial decisions), saving and investment (use of financial tools, risk and return of investment);
- credit;
- insurance.

In addition to FIs' involvement through SAP, public bodies and private companies, as part of their corporate social responsibility activities, have organised activities and seminars and have developed reading materials and websites; and consumer associations have produced books and contributed articles in magazines and newspapers.

Bank Negara Malaysia, in collaboration with the MOE and FIs, have organised workshops to train teachers in charge of SFC. The training is part of the teachers' continuing professional development. The selection of teachers to handle the SFC is at the discretion of head teachers. The MOE and FIs have observed that teachers who had attended the workshops were motivated and more excited in conducting financial education activities. Hence, their clubs tended to be more active and membership had increased.

In 2005, a guidebook for teachers in charge of SFC, prepared by Bank Negara Malaysia in collaboration with the MOE, was distributed to all schools. Lesson plans for teachers, which were compiled in consultation with MOE and SEDs and which contain outline modules and activities on financial education that can be conducted during SFC meetings, are being distributed to all schools in 2008. In addition, effective financial education materials, such as comic books and CD Roms, will be developed and distributed to schools during 2008.

In order to promote financial education to more students, Bank Negara Malaysia plans to extend the SAP to private schools in Malaysia.

SEDs organise co-curriculum award programme annually for outstanding schools, teachers and students from each category of club or society. As from 2008, SFC will be included in this programme.

Bank Negara Malaysia allocates an annual budget to organise workshops on financial education for students and teachers as well for the printing of financial education materials. In addition, FIs allocate funds to organise activities related to financial education in their adopted schools and to produce financial education materials.

The School Adoption Programme is part of the Consumer Education Programme for Malaysians, as outlined in the Financial Sector Master Plan (a ten-year blueprint which charts the future direction for the Malaysian financial system) launched in 2001.In order to help secure enhanced financial capability of consumers, Bank Negara Malaysia has established a Financial Education Working Committee and has formed strategic alliances with the Credit Counselling and Debt Management Agency, Financial Mediation Bureau and Malaysia Deposit Insurance Corporation. The objective of this strategic alliance is to foster greater collaboration in implementing the consumer education initiatives among committee members, through concerted efforts to maximise outreach to a wider range of consumers. The alliance also promotes the better understanding of financial education initiatives and measures undertaken by other committee members and so helps to avoid duplication of effort.

Netherlands

As part of a broad programme for improving the financial education of consumers (CentiQ), which was launched in November 2006, there is a project under way to improve the financial education of schoolchildren and students. This covers those aged between 8-18 years old, but the focus will be mostly on those aged 12-18.

Primary schools are required to provide financial education. They are thought to have been providing financial education since the 1970s. The Ministry of Education has provided primary schools with a description of the skills which schoolchildren need to have:

- 5-6 years: children have to learn what saving, borrowing and buying is and the agreements involved;
- 7-8 years: children have to learn the value and importance of money (and other ways of paying);
- 9-10 years: children have to learn how to deal with pocket money and the function of saving;
- 11-12 years: children have to learn to use different ways of paying and learn how to choose the right savings and payments methods.

Primary schools have discretion to decide how much time to spend on financial education. They also decide on the materials to use. However, they are required to operate within the guidelines set out above.

No specific guidelines have been issued to secondary schools.

In primary schools, financial education tends to be provided as part of arithmetic and of knowledge of society. In secondary schools, it tends to be provided as part of economics and of social science.

A survey of 400 teachers from different types of school found that teachers, both in primary schools and in secondary schools, think financial education is important (especially, in the case of secondary school teachers, for students likely to join one of the practical professions).

Lessons are generally delivered by teachers, but are sometimes delivered by financial specialists. Teachers do not receive specific training in the provision of financial education (though their broader training helps equip them to use materials and produce materials effectively). Those who are not teachers are trained by, for example, consumer organisations.

There are no examinations, qualifications or other awards associated with financial education.

Materials (mostly on budgeting) are provided by local and regional governments, consumer organisations, banks and insurance companies. Schools generally use material from a small number of organisations which are regarded as producing high quality materials. They sometimes complement these with materials or games from other organisations or with materials which they have produced themselves.

The Ministry of Finance provides most of the funding for CentiQ, with a small part of the funding provided by banks and insurance companies. The Ministry of Social Affairs and other organisations provide funding for Nibud, an organisation which is considered to be successful in providing materials for schools on budgeting and dealing with money (www.nibud.nl).

As part of CentiQ, it is intended to evaluate each part of the financial education programme, including financial education in schools. A study (which will be repeated in a few years time) is currently under way to assess the financial knowledge and beliefs of students between the ages of 8-18.

New Zealand

The Retirement Commission leads work on financial education, as part of its leadership of the development of a national strategy for financial literacy.

Financial education has only recently gained acceptance as a necessary component of education for all, following its promotion by the Retirement Commission to the Ministry of Education and other government ministries and agencies. However, there is no guidance which encourages schools to provide financial education.

The Retirement Commission estimates that, currently, around 2% of schoolchildren aged 11-12, 5% of those aged 13-15 and 8% of those aged 16-18 receive financial education. The two younger age groups tend to receive around 25 hours per year, while the older age group – where there is scope for schools to arrange examinations – receive around 100 hours.

The Retirement Commission has developed a curriculum for financial education in schools. Funding has been found to undertake a trial of this curriculum (in 2008) and to provide professional development for the teachers involved in the trial. The Ministry of Education has agreed to work jointly with the Retirement Commission on the trial and on the development of the curriculum and to take over responsibility for it from July 2009. The trial will be independently evaluated. The overall school curriculum has been reviewed and a revised curriculum is to take effect from 2010: the financial education curriculum will be phased in as part of this.

The NZ Qualifications Authority (NZQA) is developing unit standards on financial education that can be included in qualifications. These use the Retirement Commission's financial education curriculum as a base. The Retirement Commission is represented on the development committee, helping to ensure continuity in the programmes being developed. The standards will be available for schools and tertiary providers to use. The Retirement Commission is working with the tertiary sector to have the financial education unit standards included in introductory level qualifications: there has been a positive response to date from tertiary providers.

Some financial education support to schools and students is provided by Enterprise New Zealand Trust.

Teachers working with Enterprise NZ Trust get some training from the Trust. Since financial education is not a compulsory part of the curriculum, other teachers receive no training in this, either pre-service or in-service.

A small proportion of senior school students take an examination organised by Enterprise NZ Trust.

In those schools which provide financial education, it is normally delivered by teachers. It sometimes also delivered by budget advisers from community groups and NGOs.

The work undertaken by the Retirement Commission is funded by the government, although the trial of the school curriculum is being supported by a private sector partnership.

Enterprise NZ Trust is a not-for-profit trust and obtains funding from a variety of sources, both private and state. Its mission is to ensure that increasing numbers of New Zealand school students participate in quality enterprise and financial literacy education.

Singapore

Financial education is delivered to students at all levels.

At the primary and secondary school levels, financial literacy is integrated into relevant subjects, such as social studies and civics and moral education.

The MoneySENSE national financial education programme supplements this by supporting and co-funding financial literacy enrichment activities in schools and engaging industry practitioners to conduct educational talks. To date, MoneySENSE programmes have been conducted for over 100,000 students. These include:

- the Association of Banks in Singapore and MoneySENSE have developed a 30-minute programme which includes an interactive skit *Saving – the Sensible Habit* (about a bear named TRIFF and his friends), performed by a local theatre group, as well as a quiz. The programme is designed to reach out to primary school students during school assembly periods. It teaches students the difference between “needs” and “wants”, and about the virtues of living within your means and saving for a rainy day. Teachers are encouraged to run through a cartoon guide with their students after the programme to reinforce the key learning points. The programme has been provided to children in 68 primary schools;
- financial education board games and workshops conducted for over 15,000 secondary school students and 700 junior college students;
- the MoneySENSE Ambassadors promotion that encouraged over 8,000 secondary students to draw up their pocket money budgets;
- the MoneySENSE-Singapore Exchange stock whiz challenge, which is an online game to impart the basics of personal investing, for 600 students from Integrated Programme schools.

The Ministry of Education (MOE) has developed resources for teachers to enable them to include financial literacy concepts in relevant subjects at the primary and secondary school levels. For example, in a primary school civics and moral education lesson on the theme of bonding with family, students reflect on how a girl’s request for a new pair of expensive roller blades could affect the family’s expenses, and learn the importance of considering the needs of other family members when making decisions for purchases of non-essential goods and the consequences of spending money unwisely. MOE provides teachers with lesson plans as well as a CD-Rom entitled “Promoting Financial Literacy in Schools” which comprises definitions, illustrations, case studies, templates and statistical facts. Sessions are also organised for teachers to share their best practices to deliver financial literacy lessons effectively. In addition, MOE works with MoneySENSE and the CPF Board and collaborates with other external organisations such as the National Institution of Education and Singapore Management University to develop financial literacy seminars and workshops for teachers.

United Kingdom

The UK's financial services regulator, the Financial Services Authority (the FSA) , leads a National Strategy for Financial Capability, which it initiated in 2003, in partnership with the Government, financial services industry, educational bodies, consumer and voluntary organisations and others. One of the seven main programmes within the National Strategy is the delivery of financial education in schools (known as the Learning Money Matters programme). Another is improving the financial capability of young adults, including those in further education or in higher education (universities).

These programmes cover the whole of the UK, but education is organised separately in England, Scotland, Wales and Northern Ireland, so each is covered separately below. The FSA coordinates work on personal financial education across all four countries to ensure synergy and consistency.

The UK government's aspiration is that all schoolchildren benefit from a planned and coherent programme of personal financial education, so that they leave school with the skills and confidence to manage their money well. The school project within the National Strategy is intended to translate that aspiration into real change in the classroom. The FSA is taking this forward through working with government to raise the profile and status of personal finance education; and by building the capacity of key delivery partners – pfeg (the Personal Finance Education Group), the Scottish Centre for Financial Education, the Council for the Curriculum, Examinations and Assessment (Northern Ireland) and the Welsh Unit for Financial Education – in order to provide comprehensive support to teachers so that they feel confident and competent to deliver personal finance education to their pupils.

A benchmark study conducted by the Financial Services Authority (FSA), published in June 2006, indicated that most schools taught personal finance in the form of occasional lessons, usually taking place once or twice a term or less. While 57% of secondary schools (for students aged 11-16) reported that they provided regular personal finance education, it was most often only taught once or twice a month. In UK primary schools (for schoolchildren aged 7-11), the proportion of children who received some personal finance education increased as they got older - up to 68% by age 10-11 years. The same trend was found within secondary schools, with the percentage receiving personal finance education rising from 11% at age 11-12 years to 75% at age 15-16 years.

The FSA benchmark survey found that the most common topics covered in primary schools were the importance of looking after money (88% of schools) and the purposes for which money can be used (86%). Within secondary and independent schools, the most common topic was budgeting and managing personal money (93% and 92% respectively). A high proportion of secondary schools also taught about credit (83%), rights and responsibilities (81%) and earnings and benefits specific to school leavers (80%).

The benchmark study will be repeated in the future to measure progress.

A number of financial services firms provide resources and support, typically as part of their corporate social responsibility programmes. These firms are a valuable source of funding and some provide innovate resources that teachers can use in the classroom. Many of the resources have been awarded the pfeg quality mark: this quality mark is supported by stakeholders, including the government and the FSA.

England

Financial education is not compulsory. But the Department for Children, Schools and Families (DCSF) expects all schools to provide financial education for all students from ages 5-16.

Personal, social and health education (PSHE) provides the primary opportunity *within the curriculum* for pupils to be taught about personal finance. Guidance, published in 2000, provides information for teachers about what financial capability hopes to achieve and how teachers can effectively deliver financial education to their students. Guidance for both primary schools and secondary schools can be found at http://www.dfes.gov.uk/publications/guidanceonthelaw/fcg/. (The secondary school guidance (Key Stages 3-4) is currently being updated.)

Following a review by the Qualifications and Curriculum Authority (QCA) of the secondary school curriculum, financial capability has been given a more secure place in the new curriculum through a new economic wellbeing and financial capability strand at Key Stages 3 and 4[1] (which correspond to ages 11-14 and 14-16), which forms part of revised personal, social, health and Economic education (PSHE education). The subject will remain non-statutory.

Opportunities for the teaching and learning of financial capability occur across the curriculum – for example, within PSHE, mathematics, careers education, work-related learning, enterprise education, business studies and citizenship. Financial education will be a context for functional mathematics, which is being introduced into GCSE mathematics (examinations taken by students typically aged 16) from September 2010.

PSHE provides for personal finance education to be taught throughout Key Stages 1 to 4. Guidance[2] issued by the Government to teachers specifies that pupils should be taught:

- at Key Stage 1 (5-7 years old) that money comes from different sources and can be used for different purposes;
- at Key Stage 2 (7-11 years old) to look after their money and realise that future wants and needs may be met through saving;
- at Key Stage 3 (11-14 years old) what influences how we spend or save money, and how to become competent at managing personal money;
- at Key Stage 4 (14-16 years old) to use a range of financial tools and services, including budgeting and saving, in managing personal money.

The DCSF has commissioned pfeg (Personal Finance Education Group) to revise this guidance: the new version will be available by mid-2008.

[1] The relevant programmes of study, which come into effect from September 2008, can be found at http://www.qca.org.uk/libraryAssets/media/PSHE_Economic_Wellbeing_KS3_PoS.pdf and http://www.qca.org.uk/libraryAssets/media/PSHE_Economic_Wellbeing_KS4_PoS.pdf

[2] Further details of the guidance on what children should be taught at each key stage can be found at http://www.dfes.gov.uk/publications/guidanceonthelaw/fcg/

The IFS School of Finance (www.ifslearning.ac.uk) and the Award Scheme Development and Accreditation Network (ASDAN) (www.asdan.org.uk) both offer personal finance qualifications, mainly aimed at 14-19 year old students, which are taken by a small proportion of students.

Financial education is mainly delivered by teachers, though some financial services staff or other experts also deliver lessons, often in conjunction with the teacher.

As part of the Learning Money Matters programme, the FSA is funding pfeg to provide a consultancy service to teachers in secondary schools. Pfeg provides tailored support to ensure teachers are competent and confident in their delivery of financial education. The aim is to have supported 4,000 of the 6,000 secondary schools in England by 2010/11. A similar programme, What Money Means, is run by pfeg for teachers in primary schools. Funded by HSBC Bank, this programme seeks to place into schools 10,000 of HSBC’s own employees, who volunteer to support teachers in schools.

Early findings from an independent evaluation of the Learning Money Matters secondary school initiative being undertaken by pfeg suggest that the profile of schools which have requested support is representative of secondary schools across England. 99% of teachers who responded said that they had been very or quite satisfied with the support give by pfeg consultants, in particular in terms of access to resources and tailored help in putting together a personal finance education programme. The most commonly cited barriers to developing these programmes were the amount of curriculum time available and teacher confidence.

The pfeg website (www.pfeg.org) is designed as a ‘one stop shop’ for teachers to enable them to locate resources to assist them in teaching financial capability. The website collates materials produced by various sources, including those provided by financial services industry firms, educational and voluntary organisations.

Pfeg assesses financial education materials and resources and awards those which meet defined standards a quality mark. Resources that meet this standard are accurate and up to date, meet curriculum requirements, are easily available, cover a range of financial topics, and have been developed in partnership with teachers and have been shown to be successful in schools.

The PSHE Continuing Professional Development (CPD) programme is to be expanded to include a module on financial capability. It will not be compulsory for PSHE teachers to receive this training.
The Department for Children, Schools and Families will be providing £11.5m over the three year period 2008/09-2010/11 (£4.5m/£3.5m/£3.5m) to support financial education in schools. This funding seeks to develop a coherent approach to financial education, raising its profile among teachers and local authorities, and developing innovate resources that will supplement existing provision. The support programme will include:

- revising curriculum guidance for financial capability, originally published in 2000, to reflect changes to the secondary curriculum and bringing it up to date;
- producing a range of innovative curriculum resources which will use the Child Trust Fund as a tool to help children learn more about the value of money and savings;
- ensuring teachers receive high quality training and support so that they have the skills and confidence to teach financial education well;
- expanding the National PSHE CPD programme to include economic wellbeing and financial capability.

Scotland

A policy document entitled ‘Financial Education in Scottish Schools: A Statement of Position’, published in 1999, advocated the development of financial capability as part of every child’s education from early years to 18. Financial education is not currently compulsory and there are wide differences in both the quality and quantity of financial education which is delivered in schools.

The policy paper outlined a definition of financial capability based on understanding, competence, responsibility and enterprise and underpinned by 18 learning outcomes.

The 3-18 curriculum review that is currently taking place in Scotland will give a greater status and profile to financial education. The draft numeracy outcomes contain a strand on money: one of the learning outcomes states that, at age 14, young people will be able to ‘source, compare and contrast different financial products, services and contracts and explain which offers best value’. In addition to this, in the social subjects area one of the learning outcomes is that young people will be able to “identify essential goods and services, discuss the different ways available to pay for them, considering the benefits and risks of each method”. There is currently an expectation that the schools inspectorate will evaluate schools on the basis of these learning outcomes.

Financial education programmes are organised at local level, often with support from regional and national organisations such as Learning and Teaching Scotland (LTS). (LTS is the lead organisation for curriculum development in Scotland and offers support and guidance to teachers, early years practitioners, schools and education authorities.)

Financial education takes place mainly through mathematics, personal and social education, business education and home economics; and there are also a number of examples where powerful messages have been delivered through literacy and drama.

Only a small proportion of students take examinations or obtain qualifications. Generally, these are students who are looking to make a career in the financial services sector.

Schools and teachers are responsible for delivering financial education, but teachers are encouraged to make use of ‘education industry link’ providers to enhance the learning experience.

The Scottish Centre for Financial Education (SCFE) offers a wide range of continuing professional development (CPD) opportunities for teachers. These range from school visits through to one day seminars and conferences. The SCFE is funded by the Scottish Government, the FSA and some financial services firms and foundations. The FSA provides funding as part of its Learning Money Matters programme.

The SCFE works in partnership with a wide range of organisations to provide resources for learning and teaching across the early years to 18 age range. These are distributed to schools through local authorities, with which the SCFE has worked in partnership to organise and deliver CPD. Resources are also distributed at events such as seminars and conferences. The SCFE does not send resources to schools unless teachers have been involved in their events.

All SCFE resources have received the pfeg quality mark.

The SCFE is developing a self-evaluation tool for schools to use. In addition, it is intending to update its advice on financial education in the context of the new ‘curriculum for excellence’.

The Scottish Government is undertaking a review, which is due to report in Autumn 2008, of personal finance education provision in Scotland.

Wales

Financial education has been compulsory since 2000 for schoolchildren aged 7-16. It is an entitlement for those aged 16-19. Enhanced requirements are being introduced from September 2008 for those aged 7-19. Schools have discretion on how many hours of financial education which they provide.

The Department of Children, Education and Lifelong Learning and Skills (DCELLS) within the Welsh Assembly has lead responsibility for financial education in schools. The Financial Inclusion Unit of the Department for Social Justice and Local Government has overall responsibility for leading and coordinating financial capability and financial inclusion issues across the Welsh Assembly Government.

Detailed learning outcomes for financial education in schools have been laid down by the Welsh Assembly Government.

Financial education is generally provided as part of mathematics or personal and social education.

Teachers deliver financial education, with some help from credit unions, other financial institutions and citizens advice bureaux.

There is no specific training available for teachers at present.

The Welsh Assembly Government is establishing a Welsh Financial Educational Unit as from April 2008. Its responsibilities will include the following:

- evaluating the state of financial education in Welsh schools (and in the wider community);
- assisting teachers and others who work directly with young people, schools, colleges or education authorities to provide a high standard of personal finance education suited to the needs of all learners;
- cataloguing and evaluating existing resources and developing new resources to meet needs;
- developing and securing the delivery of training resources to professionals working directly with young people;
- working with other stakeholders in financial education;
- securing sponsorship from private sector organisations.

Northern Ireland

Following a revision to the curriculum, which took effect from September 2007, financial education is compulsory at foundation level and at Key Stages 1, 2 and 3 (that is from ages 4-14). Its title within the curriculum is ‘Mathematics with Financial Capability’. Financial education focuses on developing pupils’ knowledge and understanding of financial issues, developing their skills base and competence when dealing with financial issues and developing their level of financial responsibility for the financial decisions they make.

The revised curriculum also includes cross-curriculum themes, which all subjects must contribute to when delivering their lessons. The most significant of these for financial education is ‘Economic Awareness’. Another, ‘Learning for Life and Work’, also contributes to the delivery of financial education.

At Key Stage 4, all pupils continue to be taught Learning for Life and Work, which allows them to continue their financial education. A number of GCSE subjects – particularly, financial services and economics – include sections which directly focus on issues around personal finance.

At Key Stage 3, students are required to be assessed on their use of mathematics across the curriculum: this requirement stipulates areas of financial knowledge and understanding. At Key Stage 4, optional GCSE units such as economics and financial services are accredited and pupils receive a qualification if successful.

Almost all lessons focused on financial education are interactive and experiential. Many schools have introduced a school bank or allowed a local back to provide the service, though some have not done so because they are concerned about issues such as bias towards one bank and the level of work required to facilitate such a service.

Almost all resources are electronic and interactive: most are CD ROM based or are available on the internet for all teachers and pupils to access. They are typically modern, bright and engaging.

Two teachers have been employed by the Council for Curriculum, Examinations and Assessment (CCEA) to provide support and training on financial education to teachers. There is a three year plan in place which builds schools capacity year-on-year. An information booklet is planned for distribution to all schools by December 2008. This will include curriculum links, case studies, ideas of how to access resources and useful website addresses. A micro-site will also be established so that teachers can access all the materials electronically. The training of teachers will take a number of forms, including training individual schools, cluster groups and conferences. There is a promotional and awareness campaign running alongside this.

CCEA is devising a baseline questionnaire which will be sent out to schools to establish the knowledge and skills the teachers have in this area and to ascertain what they need to build their schools’ capacity to deliver financial education.. This will be repeated periodically to establish future needs and the effectiveness of the project.

The FSA, as part of its Learning Money Matters programme, funds the two teacher posts in CCEA referred to above. The Department of Education (DENI) provides funding for resource development.

A number of banks and the consumer council have each developed, or are developing, resources for use in schools.

United States

According to a survey by the National Council on Economic Education (NCEE) (2007), personal finance was included, at least to some extent, in the educational standards of 40 states (up from 34 states in 2004 and 21 states in 1998), with 28 of these requiring standards to be implemented; though only nine states required the testing of student knowledge in personal finance and only seven states made personal finance a requirement for high school graduation. The Jump$tart State Requirements website[3] indicates that, in 2008, three states require at least a one-semester course devoted to personal finance, 15 states

[3] http://www.jumpstart.org/state_legislation/index.cfm

require personal finance instruction to be incorporated into other subjects, with other states having no requirements, although personal finance education is provided in most other states on a discretionary basis. Detailed requirements differ from state to state and can also differ from school district to school district. At the Federal level, the House of Representatives has passed Resolution 737 designating April as financial literacy month and a number of states, in addition to the seven, have recognised April as financial literacy month or have other types of financial education bills pending.

Personal finance is most commonly taught – and virtually all existing requirements apply – at high school level (grades 9 – 12, or approximately ages 14 – 18).

In a Jump$tart survey conducted in 2006, 16.7% of the respondents had taken a full-semester course in personal finance and 29.3% had taken another course where at least one week of study was devoted to personal finance. Respondents were 12th grade students (aged 17-18).

Financial education is sometimes provided as a stand-alone subject and is otherwise integrated into other subjects, such as mathematics, science, social studies, economics, history, family and consumer science and English.

The content of financial education is decided by the teacher. However, the Jump$tart Coalition for Personal Financial Literacy has created national standards for financial education curricula (from kindergarten through to 12th grade) that have been adopted by the majority of financial education providers as a framework for an ideal personal finance curriculum. These standards include learning benchmarks for 4th, 8th and 12th grades (ages 9-10, 13-14 and 17-18, respectively.)

The standards do not reflect a set curriculum. Instead, they are a framework to help curriculum developers create new products; to help teachers develop lesson plans; and to help administrators set requirements. They are designed to allow flexibility in how individual teachers or schools achieve the standards and they value the use of a variety of educational materials or products.

The Jump$tart Coalition for Personal Financial Literacy seeks to help educators and parents, including parents of home-schooled children, locate personal financial education materials. To accomplish this, Jump$tart has established an on-line database of personal finance resources available from a variety of education providers, such as government, business, universities, educational bodies and non-profit organisations. Many of the materials are low cost or free. Teachers can use these personal finance teaching materials to follow their state's standards in economics, business, mathematics and family and consumer science. To ensure that disseminated materials adhere to high standards, the coalition uses a review checklist as a guide in the selection of materials to be included in the database. Jump$tart's clearing house www.jumpstartclearinghouse.org lists around 700 resources, including printed materials, on-line resources, CDs, DVDs and games.

In those states where personal finance education is required, classroom teachers are responsible for delivering it. However, many other individuals from many sectors also help to educate students about money and business. For example, credit unions have a large, nationwide contingent of professionals who make classroom visits to talk about financial services. Junior Achievement, a non-profit organisation, provides trained volunteers, who mainly come from the business sector, to offer "real-world" perspectives on financially literate behaviour. These are provided in the course of frequent, coordinated classroom visits. This programme has reached around 4 million students. Some schools districts, for example in Washington DC, operate speaker bureaux to help bring guest presenters into the classroom.

There are several banks and credit unions that are run by students at their own schools.

Many organisations that deliver programmes for use in the classroom also have corresponding training. Examples include the National Foundation for Teaching Entrepreneurship's "NFTE University".

Most of Jump$tart's state coalitions offer teacher workshops to teachers in their states in the form of one-day workshops that offer practical suggestions and introduce teachers to a variety of resources.

In the state of Wisconsin, the National Institute of Financial & Economic Literacy, in partnership with the Wisconsin JumpStart Coalition, offers a series of week-long teacher-training courses during the summer on a college campus The aim is to provide teachers with content, materials, and skills to teach and promote financial literacy in their classrooms and communities. The curriculum is delivered by a mix of business and academic professionals.

Finance University, a personal finance training programme begun in West Virginia in 2001, helps teachers gain competency in financial literacy topics by offering free courses to state educators and up to three hours of graduate, undergraduate or professional development credit. The training programme was initiated by the JumpStart Coalition.

Among the resources available to teacher are two Practical Money Skills for Life (Visa USA) courses, each of which comprises self-guided on-line training followed by written coursework which the teacher sends to an assessor.

The federal government recognises best practices and provides grants. For example, the Department of the Treasury's Office of Financial Education evaluates financial education programmes to determine whether they qualify for a John Sherman Award for Excellence in Financial Education. The analysis is based on the Eight Elements of a Successful Financial Education Program, which are criteria established by the Office of Financial Education. The Department of Education's Excellence in Economic Education programme awarded a five year grant to NCEE in 2005/06 to help improve the quality of student understanding of personal finance and economics.

In 2007, the US Treasury's Office of Financial Education worked with four economists to develop a new assessment tool for high school students older than 13 years of age. For 2008, Treasury plans to use the tool to roll out a student recognition programme called the Financial Literacy Challenge. Designed to widen the base of support for financial education in US high schools, the voluntary Challenge will be used to determine and reward high levels of financial literacy. The Challenge is based on national personal finance education standards. The 35 question, on-line test will be offered from late April to mid-May. Teachers will be invited to select any day within the testing window to participate. Students with scores in the top 25th percentile of national scores will be recognised by Treasury.

Direct funding for financial education comes mainly from the private sector, including financial institutions, foundations and academic institutions. There are also a few government grants.

In 2002, the Department of the Treasury issued a white paper "Integrating Financial Education into School Curricula", as a result of a panel discussion hosted by the US Department of the Treasury and the US Department of Education and which involved key national youth education groups. The discussion focused on the benefits of incorporating financial education into mathematics and reading curricula within a standards-based educational system. The report identified five access points for bringing financial education into schools: state standards for education, testing, textbooks, financial education materials and teacher training. The white paper also includes a list of internet clearing houses and other organisations that compile lists of financial resources that target school-age audiences.

The Department of the Treasury, along with the Department of Agriculture Cooperative State Research, Education, and Extension Service, will convene a symposium of researchers who specialise in financial education in late 2008. The goal of the symposium is to raise awareness of existing academic research and to define questions that require additional analysis. The symposium will result in a white paper that will survey current financial education research and will identify areas of potential future research.

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